

EXHIBIT 5

Transcript of Shane Burns

1 (1 to 4)

October 25, 2022

1	UNITED STATES DISTRICT COURT	1	A P P E A R A N C E S	3
2	EASTERN DISTRICT OF MICHIGAN	2	ON BEHALF OF THE PLAINTIFF, TRUTEK CORP.:	
3	SOUTHERN DIVISION	3	STANLEY H. KREMEN, ESQUIRE	
4	-----X	4	4 Lenape Lane	
5	TRUTEK CORP., : Plaintiff/Counter-Defendant, : Case No.:	5	East Brunswick, New Jersey 08816	
6	v. : : 2:21-cv-10312	6	732.593.7294	
7	BLUEWILLOW BIOLOGICS, INC. : Defendant/Counter-Plaintiff, :	7		
8	ROBIN ROE 1 through 10 : (fictitious names); ABC : CORPORATION 1 through 10 : (fictitious names), : Defendants. : -----X	8	ON BEHALF OF THE DEFENDANT, BLUEWILLOW BIOLOGICS, INC.:	
9		9	10 LIANE M. PETERSON, ESQUIRE	
10		11 FOLEY & LARDNER		
11		12 3000 K Street, NW		
12		13 Suite 600		
13		14 Washington, D.C. 20007		
14		15 202.672.5300		
15		16		
16		17 ALSO PRESENT:		
17	Deposition of SHANE BURNS	18 JENNIFER PODIS - REMOTE TECHNICIAN		
18	Conducted Remotely	19 JOHN PARKMAN - VIDEOGRAPHER		
19	Tuesday, October 25, 2022	20 ASHOK WAHI		
20	10:17 a.m.	21		
21		22		
22		23		
23	Job No.: 468439	24		
24	Pages: 1-168	25		
25	Reported by: Matthew Goldstein, RMR, CRR			
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Transcript of Shane Burns

2 (5 to 8)

October 25, 2022

	5		7
1 THE REMOTE TECHNICIAN: Thank you to		1 Blue Willow Biologics.	
2 everyone for attending this proceeding remotely,		2 THE VIDEOGRAPHER: The court reporter	
3 which we anticipate will run smoothly. Please		3 today is Matthew Goldstein, also representing	
4 remember to speak slowly and do your best not to		4 Planet Depos.	
5 talk over one another.		5 Would the reporter please swear in the	
6 Please be aware that we are recording		6 witness.	
7 this proceeding for backup purposes. Any		7	
8 off-the-record discussions should be had away from		8	
9 the computer. Please remember to mute your mic		9	
10 for those conversations.		10	
11 Please have your video enabled so the		11	
12 reporter can identify who is speaking. If you are		12	
13 unable to connect with video and are connecting		13	
14 via phone, please identify yourself each time		14	
15 before speaking.		15	
16 I apologize in advance for any		16	
17 technical-related interruptions we might have.		17	
18 Thank you.		18	
19 THE VIDEOGRAPHER: Just a moment,		19	
20 please.		20	
21 MR. KREMEN: I'm sorry.		21	
22 THE VIDEOGRAPHER: Go ahead, Mr. Kremen.		22	
23 MR. KREMEN: I just want to do one		23	
24 housekeeping matter. Just as yesterday, we do not		24	
25 agree to the usual stipulations. However, we do		25	
	6		8
1 agree to, except for objection to form of the		1 P R O C E E D I N G S	
2 question, all other objections will be reserved at		2 Whereupon,	
3 time of trial.		3 SHANE BURNS,	
4 MS. PETERSON: Okay.		4 being first duly sworn or affirmed to testify to	
5 THE VIDEOGRAPHER: All right. Just a		5 the truth, the whole truth, and nothing but the	
6 moment, please, and I'll get us on the record.		6 truth, was examined and testified as follows:	
7 Here begins Media No. 1 in the video		7 EXAMINATION BY COUNSEL FOR THE DEFENDANT	
8 recorded deposition of Shane Burns, in the matter		8 BY MS. PETERSON:	
9 of Trutek Corporation versus Blue Willow Biologics		9 Q. Thank you.	
10 Incorporated, et al., in the United States		10 Good morning. Could you please state	
11 District Court Eastern District of Michigan		11 your full name and address for the record?	
12 Southern Division, Case No. 2:21-cv-10312.		12 A. My name is Shane Burns. I'm presently	
13 Today's date is Tuesday, October 25th,		13 at 700 West Park Avenue in Perkasie, Pennsylvania.	
14 2022. The time on the video monitor is now		14 That's where the company is located. You wanted	
15 10:17 a.m. Eastern Time.		15 my business address; correct?	
16 The remote videographer today is John		16 Q. That's fine. Thank you.	
17 Parkman representing Planet Depos.		17 And just to introduce myself, my name is	
18 All parties of this video deposition are		18 Liane Peterson. I'm one of the lawyers that's	
19 attending remotely.		19 representing the defendant, Blue Willow Biologics,	
20 Would counsel please voice identify		20 in this litigation matter that's pending in	
21 themselves and state whom they represent.		21 Michigan. And I will be taking your deposition	
22 MR. KREMEN: Stanley Kremen for the		22 today.	
23 plaintiff, Trutek Corporation.		23 So I understand you're located currently	
24 MS. PETERSON: Liane Peterson from Foley		24 at your place of employment; is that correct?	
25 & Lardner LLP, on behalf of the defendant,		25 A. Yes.	

Transcript of Shane Burns

3 (9 to 12)

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	9		11
1	Q. Okay. Is there anybody else in the room	1	A. Okay.
2	with you today?	2	Q. And then, finally, as was explained
3	A. No.	3	earlier, let's try to speak slowly, not talk over
4	Q. Mr. Burns, have you had your deposition	4	each other so that the court reporter can take
5	taken before?	5	down a clean record of the deposition today.
6	A. Yes.	6	Okay?
7	Q. How many times?	7	A. Agreed.
8	A. One time.	8	Q. Are you aware of any reason why you
9	Q. And was that in connection with your	9	would be unable to provide complete and truthful
10	employment at ETS or in some other capacity?	10	testimony during the deposition today?
11	A. No, it was at a previous employer	11	A. No, I can't think of any reason.
12	relating -- unrelated to anything having to do	12	Q. Okay. Mr. Burns, have you been retained
13	with my own work.	13	14 to provide any testing services in connection with
14	Q. Okay. So you were deposed in connection	14	15 a litigation in the past four years?
15	16 with a matter with respect to your prior	15	A. You mean -- I didn't know that it had
16	17 employment?	16	anything to do with litigation. I have performed
17	A. It was in respect to a matter connected	17	testing services for Ashok Wahi's company, Trutek.
18	to another employee.	18	Q. Okay. And you're saying that at the
19	Q. Okay. And would this be your prior	19	19 time you were engaged to perform those testing
20	employment at EFE Laboratories?	20	20 services for Trutek, you were unaware that it was
21	A. Yes.	21	21 related to any litigation?
22	Q. Okay. And then would it be fair to	22	A. Correct.
23	assume that your deposition, the subject matter of	23	Q. Okay. Now, in connection with your
24	25 it, didn't have anything to do with any particular	24	other work at ETS, are you aware of whether the
	test or equipment that you used?	25	25 testing that you conducted was related to any
	10		12
1	A. No, it had nothing to do with anything I	1	litigation matters?
2	actually did at all.	2	A. No, I don't believe so.
3	Q. Okay. Fair enough.	3	Q. Okay. So to the best of your knowledge,
4	And then you've never had your	4	4 the testing that Trutek retained you to conduct is
5	deposition taken on any type of personal matter	5	5 the only time that you've performed testing in
6	either; is that correct?	6	6 support of a litigation matter; is that right?
7	A. No.	7	A. That I have been informed of.
8	Q. Okay. How long ago was that deposition?	8	Q. Fair enough. Thank you.
9	A. It would have been 2014.	9	And just for completeness, I assume that
10	Q. Well, given that that was some time ago,	10	10 same answer would hold for whether or not you've
11	I'll just go through a few rules just to remind	11	11 knowingly prepared a report concerning any testing
12	12 you about how the deposition will proceed today.	12	12 related to a litigation matter?
13	I would ask that you wait until I finish my	13	A. As far as I know.
14	14 questions before responding, and I will try to do	14	Q. Okay. So this is the only instance that
15	15 the same when you're speaking, as well. Okay?	15	15 you're aware of?
16	A. Sure.	16	A. As far as I know.
17	Q. And I'm going to ask that you answer my	17	Q. Okay. And you prepared two reports in
18	18 questions verbally rather than shaking your head	18	18 connection with testing that was conducted on
19	19 or nodding or saying "uh-huh," just so that we can	19	19 behalf of Trutek; correct?
20	20 have a clean record. Okay?	20	A. I performed two rounds of testing for
21	A. Understood.	21	Trutek and created reports to go with those tests,
22	Q. And if at any point in time you do not	22	yes.
23	understand one of my questions, let me know. I	23	Q. Have you been asked by Trutek to perform
24	24 can rephrase. Otherwise, I'll assume that you	24	24 any other testing apart from those two rounds of
25	25 understood the question. Okay?	25	25 testing that you just identified?

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4 (13 to 16)

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	13	15
1 A. I don't believe so. Unless he's got --		1 but I can look it up if you would like.
2 you know, people contact me often through their		2 Q. I don't need to know the exact -- I'm
3 companies. So I don't necessarily know who the		3 just -- approximately two weeks ago, a few weeks
4 owners of those companies are.		4 ago?
5 Q. Okay.		5 A. Yeah.
6 A. But as far as I know, just the two,		6 Q. Okay.
7 yeah.		7 A. Recently.
8 Q. Okay. So to the best of your knowledge,		8 Q. Okay. So what I would like to know is
9 you are not aware of anyone at Trutek or any		9 when were you first contacted to conduct the
10 lawyers for Trutek requesting you to conduct any		10 testing that you did?
11 other testing apart from the two rounds of testing		
12 that you identified earlier?		
13 A. As far as I know, I don't know of any		11 A. Oh, the first time Mr. Wahi contacted me
14 other instances of people trying to contact me		12 I was at the previous facility. We moved at the
15 relating to Trutek.		13 end of 2019, beginning of 2020. So he had
16 Q. Okay. And then I assume that you have		14 actually contacted me before we changed locations.
17 not been retained or requested by Trutek's counsel		15 So that would have been in 2019.
18 to provide testing on any other matter?		16 Q. Okay. And did Mr. Wahi contact you
19 A. No, my first time speaking with		17 directly, or did he reach out to ETS?
20 Mr. Kremen was in relation to this deposition and		18 A. So he reached out to -- through the ETS
21 this litigation that's going on here.		19 e-mail. So I'm the contact at ETS where people --
22 Q. Okay. And when were you first retained		20 customers often first reach us. But it was
23 or engaged to conduct testing services on behalf		21 through the ETS e-mail system, yeah.
24 of Trutek?		22 Q. Okay. So he did not identify you
25 MR. KREMEN: Objection to the form of		23 personally and reach out to you personally. He
	14	24 just reached out generally to ETS?
1 the question.		25 A. Yeah, I believe so.
2 Do you mean in general or specifically		16
3 for this litigation?		
4 MS. PETERSON: In general.		1 Q. Okay.
5 THE WITNESS: I've not been retained for		2 A. It was a while ago, but from what I
6 anything else other than this litigation.		3 recall, he wasn't -- he did not reach my personal
7 BY MS. PETERSON:		4 e-mail. He reached my work e-mail.
8 Q. Okay. And I'm just asking you when that		5 Q. Okay. And how was it determined then
9 occurred? When were you first contacted?		6 that you would be the employee of ETS that would
10 A. Oh, I believe Mr. Kremen reached out to		7 conduct the testing?
11 me a few weeks ago. I don't recall the exact		8 A. Well, we're a small business, and so I'm
12 date, but not long ago. Less than a month ago.		9 the employee at the time who was conducting
13 Q. Okay. And --		10 testing.
14 A. Sorry.		11 Q. Okay. How many -- at that time how many
15 Q. Okay. So you said Mr. Kremen reached		12 people were employed by ETS?
16 out to you a few weeks ago. And what was the		13 A. Between 8 and 12. Not many.
17 purpose of that communication?		14 Q. Okay. And at the time, you were the
18 A. He told me that he would need me to		15 only -- well, let me back up.
19 testify as an expert witness or at least as the		16 What kind of business is ETS engaged in
20 person who created the test reports.		17 generally?
21 Q. Oh, okay.		18 A. Well, we do four different types of -- I
22 So approximately two weeks ago		19 guess you could say products and services. We
23 Mr. Kremen reached out to you to explain that you		20 perform testing and consulting. We also perform
24 would need to give this deposition?		21 calibration. And that's the service side of the
25 A. I don't know if it was two weeks ago,		22 business. And then on the products side of the
		23 business, we manufacture lab equipment. We'll
		24 manufacture environmental control lab equipment,
		25 and we'll also manufacture electrostatic

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5 (17 to 20)

October 25, 2022

	17		19
1 characterization and testing lab equipment.		1 Q. Okay. And so that would be the amount	
2 Q. Okay. And so at the time that Mr. Wahi		2 of, I guess, the transfer of energy when two	
3 contacted you sometime in 2019, you were the only		3 terminals come in contact with each other?	
4 employee at ETS who provided those testing and		4 A. No.	
5 consulting services; is that correct?		5 Q. Okay. Can you just explain it for me	
6 MR. KREMEN: Objection to the form of		6 then?	
7 the question.		7 A. Sure. Electrostatic discharge is simply	
8 You may answer.		8 any time you have -- you have a discharge of	
9 THE WITNESS: Okay. We had a retiring		9 energy if you want to describe it as that, from a	
10 former owner named Stan Whites, he retired in		10 place of higher potential to a place of lower	
11 2020. So when we moved, beginning of 2020, Stan		11 potential or from one potential to another,	
12 retired. And he had been doing testing and some		12 electrostatic potential. And there's a lot of	
13 consulting, but by 2019, his work for us had		13 types of electrostatic discharge.	
14 tapered off to the point where he was practically		14 Q. Okay. I mean, would one example of that	
15 not doing anything at all.		15 be when you're walking along a carpet or something	
16 So you could say in 2019 Stan Whites,		16 and then you touch a metal object and get a shock?	
17 the former owner, was still performing some		17 A. That is one type of electrostatic	
18 testing. But at the time that I was performing it		18 discharge.	
19 for Mr. Wahi, Stan was pretty much out of the		19 Q. Okay. And that's -- that electrostatic	
20 picture. He was preparing to move to Florida, and		20 discharge, that's what ETS is primarily focused on	
21 he was finishing up the transfer of his portion of		21 and known for with respect to its testing	
22 the business and what he was involved in so he		22 services?	
23 could step out.		23 A. So that's partly true. It's not the	
24 BY MS. PETERSON:		24 entirety of it. There are other elements to what	
25 Q. I understand. Thank you.		25 we're known for.	
	18		20
1 So at the time that you conducted that		1 Q. Okay. Can you explain what those other	
2 first round of testing then, would it be fair to		2 elements are?	
3 say that you were the only employee at ETS who was		3 A. Yes. Stan Whites invented a number of	
4 providing the testing and consulting services?		4 stimulators of electrostatic discharge. And those	
5 A. Correct.		5 simulators helped to make a name for the company.	
6 Q. Okay. And do you have an understanding		6 He was also involved in the founding of the	
7 of why Mr. Wahi decided to reach out to ETS for		7 ESD/EOS Association, and he was a founding member	
8 these testing services that he requested?		8 of that organization. And they now write many of	
9 A. Yes.		9 the test standards and test methods and document	
10 Q. And what is that?		10 those and perform studies on characterizing	
11 A. We're an electrostatic characterization		11 different kinds of electrostatic discharge.	
12 lab. We perform testing on electrostatic		12 Q. Okay.	
13 phenomena. And we've been doing that for a very		13 A. And resistance testing and static decay	
14 long time. The previous owner, Stan Whites, I'm		14 testing, those are also things that Stan Whites	
15 told by Mr. Wahi, was someone that Mr. Wahi knew		15 was instrumental in helping to standardize in the	
16 of and had heard of. Stan Whites was known in the		16 industry.	
17 industry. He invented a number of machines that		17 Q. Okay. Thank you for that explanation.	
18 people commonly use today to perform testing.		18 So with respect to the testing that you	
19 Q. Okay.		19 were asked to conduct for Trutek, would you	
20 A. So our business is well known to be		20 characterize that as ESD testing?	
21 connected to the electrostatic testing industry.		21 A. It's electrostatic characterization	
22 Q. Okay. Speaking of the electrostatic		22 testing. It's not technically ESD testing.	
23 testing industry, I saw a number of references in		23 Q. Okay. And then I would assume that all	
24 your résumé to ESD. What does that stand for?		24 of those standards that you were mentioning for	
25 A. Electrostatic discharge.		25 electrostatic discharge testing, those don't	

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6 (21 to 24)

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	21	23
1 necessarily apply to the testing that you did for 2 Trutek?		1 BY MS. PETERSON: 2 Q. Okay. Did Mr. -- actually, do you know 3 Mr. Wahi's daughter's first name or her name?
3 A. Some do, some don't. 4 Q. Okay. Mr. Burns, do you intend to 5 testify at the trial in this matter if you're 6 asked to do so?		4 A. I can't recall it off the top of my head 5 right now, but I can look it up for you. Or I can 6 just ask Mr. Wahi.
7 A. If I'm asked to do so, I will. 8 Q. Okay. And when were you contacted about 9 conducting the second round of testing for Trutek?		7 Q. Well, he's not being questioned at this 8 deposition. So that's fine.
10 A. I don't remember exactly when I was 11 contacted. I do have the date when the testing 12 was performed, though.		9 I just didn't know if he had a name that 10 we could refer to her instead of just calling her 11 Mr. Wahi's daughter.
13 Q. Okay.		12 A. I can probably look it up if you'd like.
14 A. I can probably look it up if you want.		13 Q. That's okay. We don't need to do that 14 right now, but thank you.
15 Q. Yeah, I don't necessarily need an exact 16 date. I mean, if you have a general recollection 17 of the time frame, I mean, if it was roughly 18 around that same time frame that you did the 19 testing?		15 So I assume she did not personally 16 attend to observe the first round of testing that 17 you conducted; is that correct?
20 A. It would have been late 2020, because 21 the testing was performed -- or completed in 22 January of 2021.		18 MR. KREMEN: Objection to the form of 19 the question.
23 Q. Okay. And was it Mr. Wahi who contacted 24 you again to request the second round of testing?		20 You may answer.
25 A. I believe so. I know his daughter was		21 THE WITNESS: Actually, I believe she 22 was, as well as Mr. Wahi himself were both present 23 at the first test.
	22	24 BY MS. PETERSON:
1 involved in that second round.		25 Q. Okay. So both Mr. Wahi and his daughter
2 Q. How was Mr. Wahi's daughter involved in 3 the second round of testing?		
4 A. I believe she has an official position 5 at his company and she was present, actually.		1 were present at the first test, and only 2 Mr. Wahi's daughter was present at the second 3 test?
6 Q. So she was present when you conducted 7 the test?		4 A. There was another employee present with 5 her, as well, at the second test. I don't 6 remember this person's name.
8 A. I believe so.		7 Q. Okay. Was it a man or a woman?
9 Q. Did you personally conduct the test?		8 A. It was a man.
10 A. Yeah. Yes.		9 Q. And it was definitely an employee of 10 Trutek?
11 Q. And do you know why Mr. Wahi's daughter 12 personally attended that second round of testing?		11 A. Yes, I believe so.
13 MR. KREMEN: Objection to the form of 14 the question.		12 Q. Do you know what that person's role was 13 within the company?
15 You may answer.		14 A. I apologize, but I don't remember the 15 exact title or name of the person.
16 THE WITNESS: Customers commonly, very 17 often, want to see the testing performed.		16 Q. Okay. So do you know specifically why 17 Mr. Wahi and his daughter and this other Trutek 18 employee decided to attend the testing?
18 Sometimes it's to see how the testing is performed 19 should they wish to reproduce the test themselves.		19 MR. KREMEN: Objection to the form of 20 the question.
20 Other times they're simply curious. And there are 21 also other reasons, of course. Sometimes a test		21 You may answer.
22 specimen is exceptionally costly and they can't 23 afford for it to be damaged or ruined and they		22 THE WITNESS: My presumption was that 23 they were curious how to perform the test 24 themselves should they need to reproduce the 25 results.
24 wish to be present to instruct us on the care and 25 handling of their specimen.		

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7 (25 to 28)

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	25		27
1 BY MS. PETERSON:		1 Q. Yeah, sure.	
2 Q. Okay. And so you didn't ask them?		2 Then do you -- approximately how much	
3 A. It didn't seem important. Customers		3 time have you spent working on the testing that	
4 very often want to witness the test occur. That's		4 you conducted for Trutek?	
5 not unusual in the least.		5 A. One of them was at least a day. And	
6 Q. Yeah, I'm not suggesting that it's		6 then I spent more time after that working on the	
7 unusual. I'm just trying to understand what		7 report. The second one I think was more like -- I	
8 happened.		8 think it was also about a day working on that one.	
9 And I assume they -- or did they explain		9 Q. About a day for working on the test?	
10 to you why they chose to attend?		10 A. Yeah, I can look it up on my calendar if	
11 A. I don't know why they should have to.		11 you would like to know the exact amount of time	
12 Q. Okay. That really -- we're not debating		12 that I spent on it.	
13 whether or not they should have to. I'm just		13 Q. Yeah, if you can -- you know, it doesn't	
14 asking a simple question. Did they tell you		14 have to be an exact amount of time down to the	
15 anything about why they asked and chose to attend		15 minute or anything, but an approximate number of	
16 the testing?		16 hours that you spent working on it, that would be	
17 A. I don't remember. I don't think they		17 great.	
18 did. I usually don't require customers to give me		18 A. Okay.	
19 a reason for why they should want to witness a		19 Q. When you spoke with Mr. Wahi to --	
20 test. All they have to do is say that they would		20 actually, never mind.	
21 like to see the test. And I tell them usually,		21 Before you started the testing, did you	
22 Okay, let's just schedule a time.		22 speak with anybody else at Trutek other than	
23 Q. Okay. Fair enough. Thank you.		23 Mr. Wahi?	
24 And what hourly rate did you charge		24 A. Mr. Wahi was the main contact that I	
25 Trutek for the testing services that you provided		25 had. I don't recall speaking to anyone other than	
	26		28
1 in this matter?		1 himself, his daughter, and that other employee	
2 A. There's a standard testing rate, and		2 that I mentioned.	
3 then there's custom testing rates. And custom		3 Q. Okay. And when was the first time that	
4 test rates usually are charged by the day.		4 you spoke with Mr. Kremen? Was it that instance a	
5 Standard test rates are usually by the specimen,		5 few weeks ago?	
6 plus some setup and equipment fees and so on.		6 A. Yes.	
7 Q. Okay. And what did you charge Trutek		7 Q. Okay. And to the best of your	
8 for the testing that you conducted?		8 knowledge, have you ever had any communications	
9 A. I don't remember, but I can look that up		9 with any other attorneys representing Trutek	
10 for you if you would like.		10 regarding the testing that you conducted for them?	
11 Q. We will need that information, perhaps		11 A. No, I'm not aware that there were any	
12 you can look that up on a break for us.		12 other attorneys.	
13 A. Standard testing is considerably less		13 Q. And the same would be true for the first	
14 expensive than custom testing. And I believe that		14 round of testing; is that right?	
15 this was considered custom testing.		15 A. I did not speak with any attorneys for	
16 Q. Okay.		16 either round of testing. I've only spoken with	
17 A. I could be mistaken about that, but I		17 attorneys in connection with this deposition.	
18 can look up the test.		18 Q. Great. Thank you.	
19 Q. I will need to know that information.		19 A. As far as Trutek is concerned anyway.	
20 So at some point during the deposition during a		20 Q. And then specifically within ETS, did	
21 break if you can look that up and let me know when		21 anybody within the company assist you or work with	
22 we reconvene, I would appreciate it.		22 you in designing the test or conducting the test?	
23 A. Uh-huh.		23 A. Anyone else at Trutek?	
24 Q. And --		24 Q. No, at ETS.	
25 A. I'm just writing it down.		25 A. Oh, at ETS. I don't recall anyone other	

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Transcript of Shane Burns

8 (29 to 32)

October 25, 2022

	29		31
1	than maybe my general manager, I may have bounced	1	selection to use pigskin as the substrate?
2	an idea or two off of him. Stan Whites, even at	2	A. No.
3	the end I was asking him for advice on a regular	3	Q. Okay.
4	basis. But I don't think for this test I got any	4	A. I'm not sure how that changes anything.
5	significant input from either of them.	5	Q. It doesn't change anything. I just
6	Q. Okay.	6	wanted to know whether that was a request from
7	A. I could be mistaken, but I don't	7	Trutek or whether that was a decision that you
8	remember getting any advice from either of them	8	made.
9	regarding this.	9	And is the same true for the first round
10	Q. Okay. So to the best of your knowledge	10	11 of testing, Trutek requested you to measure the
11	11 today, you do not recall getting any significant	12 charge of materials on pigskin specimens using	
12	12 input or advice from anybody within ETS; correct?	12 your equipment?	
13	A. Correct.	13	A. Yeah.
14	Q. Okay. Now, with respect to your	14	Q. And did they also provide the pigskin
15	assignment for the testing services, what were you	15 samples to you for that first round of testing?	
16	16 asked to do?	16	A. Yes.
17	MR. KREMEN: Objection to the form.	17	Q. Okay. Were you told anything at the
18	Do you mean in the -- for this	18	19 time about how Trutek would use the results of
19	particular case or the first round of testing?	19	19 your testing?
20	MS. PETERSON: We can talk about this	20	A. I don't believe so, no.
21	21 particular round of testing.	21	Q. And apart from that basic instruction to
22	BY MS. PETERSON:	22	23 measure the charge of materials on pigskin
23	Q. So for your assignment for the second	23	24 specimens using your equipment, were you asked to
24	24 round of testing that you did for Trutek, what	24	25 design the test in any particular way by Trutek?
25	were you asked to do?	25	A. I don't remember them asking me to
	30		32
1	A. So I was asked by Trutek to measure the	1	change anything or alter anything from what's
2	charge of materials that he would apply -- or that	2	effectively a very common test. The one thing
3	Trutek would apply to some pigskin specimens. And	3	that was sort of, I suppose, different about it
4	then basically these pigskin specimens with	4	was that this was a fluid substance on pigskin,
5	material applied to them would be used in my	5	and so care had to be taken to make sure that, you
6	equipment to measure charge in nanocoulombs.	6	know, there was no contamination or anything like
7	Q. Okay. So you were specifically asked to	7	7 that.
8	measure the charge of the materials on pigskin	8	Q. What do you mean?
9	specimens?	9	A. Well, you could, you know, touch the
10	A. I was measured -- I was measuring the	10	10 fluid or smear it on accident or something like
11	11 charge of the materials and the pigskin specimens	11	11 that. So you have to be careful not to do that.
12	12 together. So in order to accurately do that, I	12	Q. Oh, so you had to be careful to avoid
13	13 believe we also measured the pigskin specimens by	13	13 contamination of the test samples?
14	14 themselves or neutralized. At any rate, before	14	A. Yeah, you didn't want to -- for example,
15	15 applying the material, the pigskin specimens were	15	15 if you're holding the sample or the specimen, you
16	16 neutralized using an ionizer.	16	16 don't want it to -- you don't want to get the
17	Q. Okay.	17	17 fluid on your hands -- or get your hands on the
18	A. So there would be no charge on the	18	18 fluid, rather, because your hands would act as a
19	19 pigskin specimens.	19	19 contaminant of the -- you know, what we were
20	Q. Yeah. I guess I was wondering something	20	20 trying to test.
21	a little bit different.	21	Q. Okay. And going back to my original
22	You were instructed to use pigskin?	22	22 question about whether Trutek provided any other
23	A. The customer provided the pigskin.	23	23 instructions, did they leave it to your discretion
24	Q. Oh, okay.	24	24 to determine how to prepare the samples?
25	So it wasn't your choice or your	25	A. No, they had decided how they were going

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Transcript of Shane Burns

9 (33 to 36)

October 25, 2022

	33		35
1 to cut the samples, and we were going to apply 2 either a liquid or fluid of some kind on the 3 surface. So they determined that. 4 Q. Okay. What other instructions of that 5 nature did Trutek give you for performing the 6 test? 7 A. I don't recall anything too specific. I 8 tried to record anything I could in the test 9 reports. 10 Q. Do you keep lab notebooks? 11 A. I keep test reports. 12 Q. Okay. No, I understand that you have a 13 test report that you prepared to summarize the 14 testing once it was all complete, along with the 15 results; right? 16 A. Uh-huh. 17 Q. And do you keep any other records 18 associated with the testing? 19 A. We keep data sheets, if there are data 20 sheets on certain types of tests. We keep, 21 obviously, the purchase orders from the customers. 22 Any photographs that customers wish to provide, we 23 try to keep those. And those are, of course, the 24 property of the customer and are only available if 25 the customer agrees to it. So the customer has to		1 A. I had phone calls and e-mails from 2 Mr. Wahi, but most of that was recorded in our 3 electronic database or in the reports themselves. 4 Q. So the electronic database that you 5 mentioned, that would contain other records of 6 information that's pertinent to the testing? 7 A. Yeah, it would have been the customer 8 name, number, contact information, the purchase 9 order number, things like that. 10 Q. And would it contain any notes about the 11 scope of the testing or instructions for the 12 testing? 13 A. We have a notes section. Sometimes that 14 contains some information, yes. 15 Q. Okay. So going back to what 16 instructions you received, you were given 17 instructions to measure the charge of the 18 materials on pigskin, and you were also given 19 instructions on how to prepare the pigskin; 20 correct? 21 A. Correct. 22 Q. What other instructions did you receive 23 from Trutek or Mr. Wahi about how the testing 24 should be conducted? 25 A. In what way, what do you mean?	
1 be a consenting party to the release of any 2 information that they provide us. 3 Q. Okay. So I don't think you actually 4 answered my question earlier, though. 5 Do you keep lab notebooks? 6 A. I don't have any documentation called a 7 lab notebook that's saved or preserved anywhere, 8 no. 9 Q. Okay. So you do not have lab notebooks; 10 is that correct? 11 A. No, data is kept digitally on our secure 12 server. 13 Q. Okay. 14 A. We don't keep data in notebooks. 15 Q. Okay. So the raw data from the test was 16 stored on a server; correct? 17 A. Yeah. 18 Q. Okay. And then you used that 19 information to ultimately prepare the final 20 report; is that right? 21 A. Correct. 22 Q. Okay. And as you were conducting the 23 testing, did you have any other notes or written 24 documents about the methods that you used to 25 perform the testing?	34	1 Q. Anything related to what was in your 2 report? I mean, if -- 3 A. I tried to include everything. 4 Q. I'm just interested in knowing what -- 5 what Trutek instructed you to do as opposed to 6 what was your own -- like what elements of the 7 testing was something that you devised on your 8 own? 9 A. Well, I try not to devise anything on my 10 own in general. Most of the tests that we perform 11 use some pretty standard equipment. So we're not, 12 you know, trying to reinvent the wheel most of the 13 time. We're trying to do things that people 14 commonly do in the industry. 15 Q. Okay. 16 A. So what's included in the report is as 17 much as possible what was specific to the test. 18 Q. Okay. So, for example, you mentioned 19 that the pigskin substrate was ionized; right? 20 A. We had an ionizer, and we made sure that 21 we neutralized any charge on the pigskin by using 22 that ionizer, yes. 23 Q. And did Mr. Wahi or anyone from Trutek 24 request you to do that, or is that part of your 25 procedure?	36

Transcript of Shane Burns

10 (37 to 40)

October 25, 2022

	37		39
1 A. Well, that's something that you commonly		1 of reliable, repeatable results. And there's a	
2 do when you're performing any testing using a		2 formula that you can use to find out how reliable	
3 NanoCoulomb Meter.		3 a particular product or material is per the number	
4 Q. Okay. So that's something that was your		4 of repetitions that you perform.	
5 input to the test?		5 And so, generally speaking, if you're	
6 A. Yes, I guess you can say that.		6 just doing some kind of indication test, you can	
7 Q. That wasn't an instruction that you		7 use three, but most test standards in the industry	
8 received from Trutek?		8 recommend six or more. So six was sort of the	
9 A. No. I don't believe so, no.		9 bare minimum that I think is -- or that most	
10 Q. Okay. And then what about the sample		10 industry standards indicate is needed for good	
11 preparation, so the amount of test sample that was		11 reliable results. And if you have six, then you	
12 applied to the pigskin, how was it determined how		12 can record your minimum, maximum, and average and	
13 much of the sample should be applied?		13 from there figure out whether or not this is	
14 A. That was determined by Trutek.		14 something that you can rely on, this data you can	
15 Q. Okay. And the amount of time in between		15 rely on.	
16 sample preparation and placing the substrate in		16 Q. Okay. It looks like for this particular	
17 the test apparatus, was that provided by Trutek,		17 test you had three data points for each product;	
18 or is that part of your process?		18 correct?	
19 A. We tested the sample immediately after		19 A. I think so. Yeah, this is an	
20 test -- the sample is prepared.		20 indication -- more of an indication test.	
21 Q. Okay.		21 Q. What do you mean by an indication test?	
22 A. That was the whole idea was to test the		22 A. An indication test uses usually three	
23 material. You know, if you waited, you have risk		23 specimens.	
24 of the environment affecting the test specimen.		24 Q. Yeah, I understand that. But what is an	
25 So you can't wait. You test it immediately.		25 indication test?	
	38		40
1 Q. Okay. And then the results. So they		1 A. It's just exactly that. They use three	
2 were reported in terms of the total surface		2 specimens instead of, say, one or six.	
3 electric charge as well as charge per square. Did		3 Q. And what is the word "indication" -- I	
4 Trutek request that the results be reported in		4 mean, what's the relevance of that word to a --	
5 that manner, or is that how you decided to report		5 A. Indication is that you have a test that	
6 them?		6 you've performed. It's not performed during the	
7 A. Yeah, they -- I believe that they wanted		7 manufacturing process on a regular basis every	
8 somehow to quantify the material in terms of		8 day, and it's also not something that you're	
9 relating the charge we measured to the amount or		9 necessarily performing for the purposes of, say, a	
10 surface area of material that could be spread on		10 round robin study, okay, for say creating an	
11 the substrate, the pigskin.		11 industry standard. So it's an indication of the	
12 Q. Okay.		12 characteristics of the material that the customer	
13 A. So I think that that was something that		13 can then take that information and then use it for	
14 they really were desirous to have.		14 their own purposes.	
15 Q. Okay. And then in terms of, like, how		15 Q. Got it.	
16 many samples were tested or the number of		16 And did you recommend to Trutek that --	
17 replicates for each sample, did that instruction		17 I think you said that six replicates is usually	
18 come from Trutek, or was that part of your design		18 what you recommend. Is that what you recommended	
19 of the study?		19 here?	
20 A. So I typically try to recommend that if		20 A. You try to get as many replicates as you	
21 a customer is trying to collect data on a product,		21 possibly can.	
22 that they use at least six data points. And		22 Q. And so why did you only use three in	
23 there's a reason for that. So there is something		23 this instance?	
24 called an AQL that is commonly used in		24 A. Probably because that's about how much	
25 manufacturing and industry to try to get some kind		25 pigskin we've had. Although, they may have just	

Transcript of Shane Burns

11 (41 to 44)

October 25, 2022

	41	43
1 needed three data points for the purposes of 2 knowing what the characteristics were of their 3 material. You can do 100 data points, and it 4 doesn't change necessarily what the material is 5 like or how it's going to behave.	1 may answer. 2 THE WITNESS: They wanted to explain why 3 they were using pigskin as a substrate. 4 BY MS. PETERSON: 5 Q. Okay. 6 A. Or skin at all. It didn't really -- it 7 was sort of an odd substrate. So I suppose I must 8 have asked about it, and they explained that to 9 me.	
6 Q. So you advised Trutek that there would 7 be three replicates, and they were okay with that? 8 A. Yeah. 9 Q. Okay. 10 A. I believe so.	10 Q. Fair enough. 11 So what did they explain to you about 12 why they wanted to use pigskin? 13 A. It's similar enough, I guess, to human 14 skin. That was their explanation.	
11 Q. Were you told anything else by Trutek 12 about the sample products other than that they 13 were a solution and a spray containing permanently 14 ionized molecules? 15 MR. KREMEN: Objection to the form of 16 the question. 17 You may answer. 18 THE WITNESS: I was told by Trutek that 19 this was a cationically charged substance or a 20 charged substance, but that didn't matter to me. 21 Ultimately, all I need to know is that I have a 22 substance and I need to perform a test and I'm 23 going to provide them results of the test. 24 BY MS. PETERSON: 25 Q. Okay.	15 Q. Okay. So you said that pigskin or skin 16 at all, it was sort of an odd substrate; right? 17 MR. KREMEN: Objection to the form. 18 You may answer. 19 THE WITNESS: It's unique certainly. I 20 don't have a lot of people coming in with any kind 21 of pigskin as a substrate. 22 BY MS. PETERSON: 23 Q. Have you ever conducted any testing over 24 the course of your career using pigskin as a 25 substrate?	
1 A. I don't really need to know what they're 2 using it for or what the substance even 3 necessarily is other than how to properly handle 4 it. 5 Q. Okay. Were you told that the test 6 substances were pharmaceutical products? 7 A. I was not aware that they were 8 pharmaceutical in nature -- 9 Q. Okay. 10 A. -- necessarily. 11 Q. Were you -- well, what do you mean by 12 "not necessarily"?	1 A. Well, typically, people aren't testing 2 biologics. So it's not really a surprise to me 3 that I wouldn't have had that before, but that's, 4 you know, an easy explanation. 5 Q. Okay. Is that because your testing 6 typically involves, like, electronics equipment, 7 not biologic or pharmaceutical products? 8 MR. KREMEN: Objection to the form of 9 the question. 10 You may answer. 11 THE WITNESS: This kind of testing where 12 you are using a NanoCoulomb Meter and a Faraday 13 cup, all kinds of substances are tested. I've had 14 everything from carbon powders to peanut butter, 15 believe it or not. So what the material is does 16 not change how the test is performed necessarily 17 except in how to handle it, in how to handle the 18 material. 19 BY MS. PETERSON: 20 Q. Okay. Well, when I asked you -- let me 21 ask you the question again. Have you ever 22 conducted any testing over the course of your 23 career using pigskin as a substrate?	44
13 A. Well, I don't know. I don't know what 14 the materials were for. So, you know -- I know 15 one was a gel and one was a spray, and to me it 16 doesn't matter what the purposes of that material 17 is, how does that affect the test. 18 Q. Okay. Fair enough. I understand. 19 Were you told by Trutek that the test 20 products were intended to be used for 21 administration to human skin? 22 A. They did mention that, yes. 23 Q. Okay. And did they -- why did they tell 24 you that? 25 MR. KREMEN: Objection to the form. You	24 A. No. 25 Q. No.	

Transcript of Shane Burns

12 (45 to 48)

October 25, 2022

	45		47
1	And then you said that it's not	1	consistently.
2	surprising that I wouldn't have had that before	2	Q. Okay. And why was it important to
3	because typically people aren't testing biologics.	3	control the quantity of the fluid or the gel that
4	What did you mean by that?	4	was applied?
5	A. Well, people test all kinds of things,	5	A. I don't know, and it doesn't matter.
6	but not usually things that are going to be used	6	Q. Okay. Well, you said it was important.
7	on a person or -- I have had a handful of tests	7	A. It was important to the customer.
8	that involved the pharmaceutical industry, but	8	Q. Was it important to you? Okay.
9	it's unusual when it occurs, but it happens from	9	A. It was important to the customer.
10	time to time.	10	Q. So Trutek told you it was important to
11	Q. Okay. And to the best of your	11	control the quantity of the test sample that's
12	recollection, is this the only instance when you	12	applied to the substrate?
13	were asked to test a pharmaceutical product that	13	A. Yes.
14	was going to be administered to human skin?	14	Q. Okay. And for the second round of
15	A. As far as I --	15	testing, you said you were provided containers
16	MR. KREMEN: Objection to form.	16	with specified volumes? Is that what you said?
17	THE WITNESS: Go ahead.	17	A. Yeah, they had some small tubes of
18	MR. KREMEN: Go ahead, answer.	18	material with -- sometimes with a swab or
19	THE WITNESS: As far as I know, I don't	19	applicator already inside of the tube --
20	think I have tested anything like this. I have	20	Q. Okay.
21	tested other things that were applied to human	21	A. -- I believe.
22	skin. I've tested lotions, but not in this way.	22	Q. So the containers that you received from
23	And I've tested perfumes -- we've tested perfumes	23	Trutek had just a specific amount of volume in
24	as a company. And that also was tested a little	24	them, and you were instructed to take that entire
25	differently from this.	25	volume of material and apply it to the test
	46		48
1	BY MS. PETERSON:	1	substrate?
2	Q. Okay.	2	A. Yes.
3	A. Because they were looking for different	3	Q. Okay. So you were --
4	characteristics. They were not concerned about	4	A. After the substrate had been
5	charge.	5	neutralized.
6	Q. Okay.	6	Q. Of course.
7	A. So charge is not typically something	7	So the containers that you were provided
8	that people are looking to measure when it comes	8	by Trutek, they weren't the original containers
9	to things that are applied to a skin.	9	that the product was sold in; right?
10	Q. Understood. Thank you.	10	A. I don't know. They looked like, I don't
11	Now, when you were contacted to conduct	11	know, what you would call samples.
12	the second round of testing by Trutek, were you	12	Q. Did they have any type of labeling on
13	asked to modify the test procedure at all?	13	them?
14	A. I don't recall any specific changes. I	14	A. I don't remember. There were -- they
15	know that there was -- the second round, there was	15	probably -- yeah, I think they did. I think they
16	an attempt to provide more consistency in the	16	may have had some small amount of printing on
17	amount of material applied. So that was really	17	them.
18	important. Because the first time, you know,	18	Q. Did it look like labeling that would be
19	other than controlling the surface area it was	19	on a commercial product that would be sold to a
20	applied to, the actual quantity of fluid or gel	20	customer, or did it look like a label that was
21	applied was difficult to control.	21	just printed out with a name and a volume?
22	So the second time we had some	22	A. I don't know that it had the volume
23	containers of specified volumes, I believe, that	23	printed on it.
24	were provided. And so that allowed us to control	24	Q. Okay. But did it look like a --
25	the quantity of material a little bit more	25	A. They knew what the volume was, though.

Transcript of Shane Burns

13 (49 to 52)

October 25, 2022

	49		51
1	Q. Okay. So the containers you were	1	pigskin looked like after it was cut up?
2	provided had a preset volume that matched the	2	A. No, I don't think so.
3	amount that you applied to the substrate in the	3	Q. Do you have any photos of what the
4	case -- in the test; correct?	4	pigskin looked like after the test samples were
5	A. Yes.	5	applied to it?
6	Q. Okay. And it had a label on it, and	6	A. No, I don't believe so.
7	that label --	7	Q. And did you apply the test samples to
8	A. May have had a label on it.	8	the pigskin directly, or did someone from Trutek
9	Q. May have had a label.	9	handle the application?
10	A. I don't know that they all had labels	10	A. I had the customer apply the samples
11	even. If they did, it seems like some of them	11	themselves, and I watched them do it so that we
12	didn't.	12	could keep track of -- it helped having more than
13	Q. Okay.	13	one person to keep track of which one was which.
14	A. But they knew which ones were which.	14	Q. And why did you have Trutek personnel
15	Q. And how did you keep track of which ones	15	apply the samples rather than doing it yourself?
16	were which during the test?	16	A. They were their samples.
17	A. I believe they were separated physically	17	Q. Okay. So that wasn't unusual to you at
18	from one another, either in Ziploc bags or in	18	all to have the customer not just observe the test
19	separate groups. And I believe the Ziploc bags	19	but also directly participate in the test and --
20	were alphanumerically labeled. And so it was	20	A. It's very common.
21	pretty clear which ones went with which group.	21	Q. -- perform steps of the test?
22	Q. Okay.	22	A. Yes, that's very common.
23	A. At the time, yeah.	23	Q. Okay. Are there any other aspects of
24	Q. Okay. Do you have photos of the samples	24	the test that the Trutek personnel handled
25	and the containers that you were provided for the	25	themselves as opposed to you?
	50		52
1	second round of testing?	1	A. No, the handling -- the working of the
2	A. I was not asked to take any photographs	2	machine itself was handled by me.
3	of those particular specimens for this purpose.	3	Q. Who cut the pigskin?
4	Q. Okay.	4	A. And I recorded the data.
5	A. And they were -- some of the containers	5	I believe that Trutek cut the pigskin.
6	once broken up and emptied were useless anyway.	6	So they were the same size, roughly.
7	So they were just thrown away.	7	Q. Were the pigskin samples measured after
8	Q. Some of the containers when you received	8	they were cut?
9	them were already broken --	9	A. Yeah, I believe we did measure them.
10	A. No, no. No. No, not when we received	10	Q. Did you measure them, or did the Trutek
11	them. After they had been used, they were	11	personnel measure them?
12	obviously emptied of fluid. So there was no	12	A. I believe I measured them.
13	reason to keep them or photograph them. So they	13	Q. And how were those measurements
14	were simply thrown in the trash.	14	recorded?
15	Q. Okay. Did you take any photos of the	15	A. I believe it's in the test report how
16	pigskin substrate that you received from Trutek?	16	big the test substrates were.
17	A. Other than what's in the report?	17	Q. There's an approximate measurement, but
18	Q. Correct.	18	I'm asking did you record the actual measurements
19	A. No, I think I tried to include any	19	19 that you took after each of the pigskin samples
20	photographs of the pigskin in the report.	20	20 were cut?
21	Q. Okay.	21	A. No.
22	A. Some dotted lines or something were	22	MR. KREMEN: Objection to form.
23	included to show how we cut the pieces up of the	23	You may answer.
24	pigskin.	24	THE WITNESS: No, I don't think I
25	Q. So do you have any photos of what the	25	recorded the precise measurements.

Transcript of Shane Burns

14 (53 to 56)

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	53		55
1 BY MS. PETERSON:		1 what the retail version looks like.	
2 Q. Okay. So for the first round of testing		2 Q. I mean, did it have, like, a logo	
3 that you did, were you provided containers of the		3 printed on it, or did it just -- was it just a	
4 test samples with a preset amount of material in		4 general container?	
5 each sample container?		5 A. I don't think it was what would be	
6 A. You said for the first round?		6 called a general container, but I don't recall	
7 Q. For the first round, yes.		7 specifically any logos being printed on it.	
8 A. No. On the different materials they		8 Q. Okay. So you can't say for sure whether	
9 tested in -- I believe it was 2019, those		9 or not the samples you received were, you know,	
10 materials were, I believe, in larger containers.		10 samples that would have been available for retail	
11 Q. Okay. And did they --		11 purchase and not opened and unmodified? You can't	
12 A. Slightly larger containers, yeah.		12 say that for certain one way or the other?	
13 Q. Sure.		13 MR. KREMEN: Objection to the form.	
14 Did they contain the type of, like,		14 You may answer.	
15 printing and labeling that had you would typically		15 THE WITNESS: Well, the second round of	
16 expect to see on a product that would be purchased		16 testing, several of the containers, they could not	
17 commercially?		17 have been opened. Because you literally broke off	
18 A. I believe one did. The others were in		18 the end of them, I believe, to remove the	
19 sort of white, blank containers.		19 applicator.	
20 Q. Okay. But for the second round of		20 BY MS. PETERSON:	
21 testing that you did, the test samples were		21 Q. Okay. And were those the Trutek	
22 provided to you by Trutek in generic, blank		22 NasalGuard samples or the BlueWillow --	
23 containers that may have had some other label		23 A. I don't know.	
24 printed on it; is that right?		24 Q. -- NanoBio Protect samples?	
25 A. I don't know that they were generic		25 A. I don't remember which was which.	
	54		56
1 containers. They looked like -- I mean, they were		1 Q. Okay. So some of the -- for the second	
2 small, and you sort of -- on some of them you		2 round of testing, some of the containers could not	
3 snapped off the end to remove the applicator that		3 have been opened, but that statement, that -- that	
4 was inside of them. Of course, once you -- you		4 just applies to some of the containers?	
5 remove the applicators and, of course, once you		5 A. Yeah, I mean, some of them were -- I	
6 did that, it was -- basically you applied it, and		6 guess you could say you squeezed it out or	
7 then that was it. It was, I believe, single-use		7 something like that and -- you know, there was	
8 sort of containers.		8 like a small tube or something like that that they	
9 Q. Okay. Did it look like something		9 were in. And they weren't really -- they didn't	
10 that -- like if you were to go online to Amazon		10 seem to me like they had been tampered with, if	
11 and purchase one of Trutek's NasalGuard products,		11 that's what you're asking.	
12 I mean, is that what the container looked like to		12 Q. Yeah, I'm not suggesting that they were	
13 you?		13 tampered with.	
14 A. I'm going to be totally honest with you,		14 A. I'm misunderstanding what the --	
15 I have no idea what Trutek's products look like		15 Q. Okay. Let me back up.	
16 when they're being sold on Amazon.		16 So this all goes back to when you said	
17 Q. Okay.		17 that the Trutek had a desire to ensure that there	
18 A. I've never seen the retail version of		18 was more consistency in the amount applied.	
19 whatever it is that it comes in.		19 Do you remember that?	
20 Q. Fair enough.		20 A. Yeah. Yeah.	
21 So did the containers you received, did		21 Q. And so you were given samples in	
22 they look like a retail version, or did it look		22 containers that had a preset amount?	
23 like --		23 A. Yes.	
24 A. How would I answer that? No, I don't		24 Q. Okay. And was that preset amount, I	
25 know what it looks like. I'm sorry, I don't know		25 mean, do you know if that was different than the	

Transcript of Shane Burns

15 (57 to 60)

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	57		59
1	amount in the typical retail version?	1	point right now. How about we go off the record.
2	A. No.	2	THE VIDEOGRAPHER: We're going off the
3	MR. KREMEN: Objection to the form.	3	record. The time is now 11:29 a.m.
4	THE WITNESS: I wouldn't know that.	4	(Recess from the record.)
5	BY MS. PETERSON:	5	THE VIDEOGRAPHER: We're back on the
6	Q. Okay.	6	record. The time is now 11:45 a.m.
7	A. I don't know what the retail version	7	THE WITNESS: I did get that information
8	looks like.	8	for you. If it's all right from Mr. Wahi to share
9	Q. Sure.	9	this information, I can share it with you.
10	And so what I -- do you know if Trutek	10	BY MS. PETERSON:
11	prepared the samples in these containers for	11	Q. You're talking about the --
12	use -- specifically for use in the testing, or	12	A. The cost.
13	were these, you know, off-the-shelf samples of the	13	Q. Okay.
14	product?	14	MS. PETERSON: Stan, do you have any
15	MR. KREMEN: Objection to the form of	15	objection to that?
16	the question.	16	MR. KREMEN: Ashok, could you unmute,
17	You may answer.	17	please?
18	THE WITNESS: I don't know.	18	MR. WAHI: No, I don't have any
19	BY MS. PETERSON:	19	objection.
20	Q. Okay. Fair enough. That's fine. If	20	MR. KREMEN: Okay. Neither do I. You
21	you don't know, you don't know.	21	can mute again.
22	So you have no idea if these were	22	THE WITNESS: So if you'd like to know,
23	off-the-shelf products or if they were prepared	23	the cost of custom testing is \$300 per hour. And
24	specifically for the testing?	24	it is what we charged him for both tests. And
25	MR. KREMEN: Asked and answered.	25	that was for three hours on July 30th and for
	58		60
1	You may answer.	1	two hours -- that's July 30th of 2019. And for
2	THE WITNESS: I don't know how I would	2	two hours on June 13th of 2021 -- or January,
3	know that.	3	sorry, not June. My A looks like a U.
4	BY MS. PETERSON:	4	January 13th of 2021. I apologize.
5	Q. I mean, perhaps someone from Trutek	5	BY MS. PETERSON:
6	explained that to you?	6	Q. Okay. So that first time frame billed
7	MR. KREMEN: Objection.	7	of three hours, that would be for the first round
8	You may answer.	8	of testing?
9	THE WITNESS: They didn't tell me how	9	A. That's correct.
10	they got the samples or how they put them in the	10	Q. And then the second amount of time of
11	containers.	11	two hours, that would be for the second round of
12	BY MS. PETERSON:	12	testing?
13	Q. Okay. Did they --	13	A. That's correct.
14	A. They brought containers and told me what	14	Q. Okay. And did you bill them any further
15	they wanted them to be labeled as, and so that is	15	time for preparation of the report, or is that
16	how I labeled them in the test report.	16	included in those time frames?
17	Q. Okay. Did Trutek explain to you how	17	A. So normally these days we would be
18	they were preparing the samples in order to ensure	18	charging them for the report, but at that time for
19	the consistency in the amount applied for the	19	some reason we waived it.
20	second round of testing?	20	Q. Okay. So the total amount that you've
21	A. Well, I watched them apply it. I don't	21	billed to Trutek is five hours at a rate of \$300
22	know how they had prepared it before they gave me	22	per hour?
23	the containers.	23	A. Correct.
24	Q. Okay.	24	Q. Okay. Thank you for that.
25	MS. PETERSON: I'm at a good breaking	25	Before the break -- actually, let me

Transcript of Shane Burns

16 (61 to 64)

October 25, 2022

	61	63
1 just ask you while we were on the break just now, 2 did you speak to anyone about the substance of the 3 testimony that you provided so far?		1 A. So it's mostly electrostatic
4 A. No.		2 characterization testing, not whatever else other
5 Q. So you didn't speak with Mr. Kremen or 6 Mr. Wahi during the break?		3 information that may be there. If they wish to
7 A. I went to the bathroom.		4 provide other information, I can record it, but
8 Q. Okay. Thank you. I did, too, if we're 9 sharing.		5 the point of the test that we were providing was
10 Okay. Before the break, we were talking 11 about changes that you made from the first round 12 of testing to the second round of testing. And 13 you mentioned ensuring the consistency in the 14 amount applied. Were there any other changes to 15 the testing for the second round?		6 electrostatic characterization.
16 A. I don't recall any specific changes 17 other than anything that was mentioned in the 18 report. The point of the report is so that I 19 would be able to record anything that was a 20 deviation or so that it's in writing so you could 21 go back and refer to it.		7 Q. Sure.
22 Q. Okay. So the purpose for the report is 23 to document any changes that were made to the 24 testing procedure?		8 But you would agree, though, that the 9 manner in which the samples were prepared is also 10 important to the testing and the results that are 11 obtained from the testing; right?
25 A. As well as the results and any		12 A. Sure.
1 conclusions that might be drawn from it, yes.	62	13 Q. Now, specifically with respect to the 14 pigskin substrate that was used in the testing, 15 did you handle the pigskin at all over the course 16 of the second round of testing?
2 Q. Okay. So if there were any other 3 changes to the testing procedure in the second 4 round, it would be reflected in your report?		17 A. Yeah, there's a pair of plastic tongs.
5 Is that a "yes"?		18 They're regular tongs that you can get at the 19 dollar store. And those were the main thing I 20 believe that we handled them with. And I believe 21 I also had gloves. But by and large, we were 22 trying to hold them with the plastic tongs to 23 neutralize in front of the ionizer and then 24 provide the substance and --
6 A. Yes, I'm sorry.		25 Q. Okay. So, for example, when the
7 Q. That's okay.		1 substrates were transferred into the apparatus, 2 did you do that, or did the Trutek personnel do 3 that?
8 A. Verbal, yeah.		4 A. I did that.
9 Q. Do you recall whether you documented 10 anything about the need to maintain consistency in 11 the amount applied when preparing your second 12 report?		5 Q. Okay.
13 A. I don't remember documenting that in the 14 report. If it's there, then that's fine. But it 15 was the purpose of the customer to have that 16 controlled. I didn't place that requirement on 17 them.		6 MS. PETERSON: Let's mark Mr. Burns' 7 report for BlueWillow as Exhibit No. 24 [sic]. 8 (Burns Deposition Exhibit 23 was marked 9 for identification and attached to the 10 transcript.)
18 Q. So the report doesn't necessarily 19 document everything that the customer provided 20 input on then. Is that what you're saying?		11 MR. KREMEN: The last one was 21.
21 A. No, my job with the report was mostly as 22 much as possible to record things that the 23 customer provided to me that they wanted in the 24 report, but also the data as I recorded it.		12 MS. PETERSON: No, I think the last 13 exhibit we used yesterday was 22, Stan.
25 Q. Okay.		14 MR. KREMEN: 22 was the --
		15 THE REMOTE TECHNICIAN: Yes, that's --
		16 that's correct, counsel.
		17 THE WITNESS: I'm sorry, what report for 18 BlueWillow? I don't recall working for 19 BlueWillow.
		20 BY MS. PETERSON:
		21 Q. Let me -- yeah, I should have explained 22 this to you. So, Mr. Burns, I have some documents 23 I'm going to show you. We're going to mark them 24 with exhibit numbers. They're going to be 25 displayed on the screen so you can see them. And

Transcript of Shane Burns

17 (65 to 68)

October 25, 2022

	65		67
1 at the same time we're also going to put copies of 2 them into the chat window. So if you want to, you 3 can open them up directly on your own to look 4 through them; or if you would rather just have us, 5 you know, scroll through the document on the 6 screen.		1 BlueWillow report because this is the round of 2 testing where you tested the BlueWillow NanoBio 3 Protect product; right?	
7 A. I have copies of the reports.		4 A. Sure, if that's what the report says.	
8 Q. Okay. Well, if you have copies sitting 9 there right in front of you, you're free to look 10 at those, too. But we are going to display them 11 on the screen just so that everybody can make sure 12 we're looking at the correct document.		5 MS. PETERSON: Okay. Let's scroll down 6 to page 5.	
13 A. Right. My question was not how -- my 14 question was which report is being referred to as 15 the one as pertains to BlueWillow?		7 BY MS. PETERSON:	
16 Q. Yeah, and just to clarify again, I 17 described it that way so that the deposition 18 technician could find it. I'll further identify 19 it on the record for you, Mr. Burns, so that you 20 can make sure you have the right one.		8 Q. Okay. Do you see up here the product 9 test samples are listed?	
21 A. Thank you.		10 A. Yes.	
22 MS. PETERSON: So, Jennifer, let's pull 23 up the document -- it has my item number 03.		11 Q. And the first product is TTK-NS, which 12 is NasalGuard misting spray, and then the second 13 product is BW-NBP, BlueWillow NanoBio Protect; 14 right?	
24 THE REMOTE TECHNICIAN: Yes, I see it. 25 Stand by, please.		15 A. Yes.	
1 BY MS. PETERSON:	66	16 Q. Okay. So this is the report that we've 17 been talking about in terms of the second round of 18 testing; right?	
2 Q. Okay. And for the record, this is a 3 document titled 'Surface Electrostatic Charge 4 Evaluation of Nasal Application Products Technical 5 Report.' And it has a report issue date of 6 January 18, 2021.		19 A. Yes.	
7 MS. PETERSON: And we will mark this as 8 Deposition Exhibit 23.		20 MS. PETERSON: Okay. And I see -- if we 21 go to the second page. And maybe we can just go 22 out to the full screen view, I mean, just to show 23 the entire -- yeah, there we go.	
9 MR. KREMEN: 23.		24 BY MS. PETERSON:	
10 BY MS. PETERSON:		25 Q. So here is one photo included. And this	
11 Q. So, Mr. Burns, do you recognize this 12 report that we have marked as Exhibit 23?		68	
13 A. Yeah. Yes.		1 is a photo of the NanoCoulomb Meter that you used?	
14 Q. Okay. And this is the report that you 15 prepared --		2 A. NanoCoulomb Meter, yes.	
16 MS. PETERSON: Could we put it back up 17 on the screen, please.		3 Q. NanoCoulomb Meter. Thank you for that.	
18 THE REMOTE TECHNICIAN: Yes, I'm sorry, 19 Counsel. That was a mistake.		4 Okay.	
20 MS. PETERSON: That's okay.		5 MS. PETERSON: Second page -- or sorry, 6 go to the next page, page 3.	
21 BY MS. PETERSON:		7 BY MS. PETERSON:	
22 Q. Mr. Burns, this is the report that you 23 prepared for the second round of testing; correct?		8 Q. There's another photo of the Faraday cup 9 that you used in the test; is that right?	
24 A. Correct.		10 A. Yes.	
25 Q. Okay. And I referred to this as the		11 MS. PETERSON: And then let's go to 12 page 4.	
		13 BY MS. PETERSON:	
		14 Q. And here --	
		15 A. Right.	
		16 Q. -- there is a depiction of the pigskin. 17 Is this an actual photo of the pigskin sample?	
		18 A. So I think this one was -- I can't 19 remember. I think this is a diagram mostly to 20 show how he cut it up.	
		21 Q. Okay.	
		22 MS. PETERSON: And then if we go to the 23 next page.	
		24 BY MS. PETERSON:	
		25 Q. Here we have the results that you	

Transcript of Shane Burns

18 (69 to 72)

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	69		71
1 report; correct?		1 perform steps of the test?	
2 A. Yeah.		2 A. The main test technician is recorded.	
3 Q. And then go to the last page. And here		3 The test technician is recorded in the test, yes.	
4 we have the conclusions; right?		4 Q. And if other people perform steps of the	
5 A. Correct.		5 process, would it be common to include their names	
6 Q. So I see two photos in total in this		6 and to indicate what steps they performed?	
7 report; is that right?		7 A. That depends on the steps. If you're	
8 A. Correct.		8 talking about providing samples or providing	
9 Q. Do you know if you took any other photos		9 materials or preparing samples, no. Every	
10 during the course of the second round of testing		10 customer sends me samples that they prepared, and	
11 that were not included in this report?		11 then I perform tests on the samples.	
12 A. I don't believe so, no.		12 Q. Have you ever had --	
13 Q. And feel free to look at your own		13 A. And if that means cutting a sample or	
14 version of the report or take a look at it		14 molding a sample or putting it into a package, I'm	
15 directly through the chat, but I don't see that		15 not going to include all of those people's names	
16 you recorded anywhere in this report who else		16 on the report.	
17 attended or participated in the testing; is that		17 Q. Okay. Did the Trutek personnel cut the	
18 right?		18 pigskin samples in your presence, or were they	
19 A. No, I don't see why that would be		19 already precut by the time they arrived at your	
20 necessary.		20 laboratory?	
21 Q. So just to confirm, you did not include		21 A. I don't remember. They may have cut	
22 in your report the fact that there were personnel		22 them for me in this case before they arrived.	
23 from Trutek present at the testing; right?		23 Q. Okay. And did the Trutek personnel	
24 A. That's correct. I did not record anyone		24 apply the test samples to the pigskin substrate in	
25 else as having been present at the test.		25 your laboratory?	
	70		72
1 Q. And you also did not record in the		1 A. Yeah. Yeah, they applied the material	
2 report the fact that Trutek personnel performed		2 to the substrate in the lab.	
3 some of the steps that are described in your		3 Q. So if you have a customer who attends a	
4 report; correct?		4 test in your laboratory and they perform the	
5 MR. KREMEN: Objection to the form of		5 sample preparation in front of you in your	
6 the question.		6 laboratory, would you commonly include that	
7 You may answer.		7 information in your report?	
8 THE WITNESS: No, I did not record that		8 A. No, not necessarily.	
9 in the report.		9 Q. Are there circumstances where you would	
10 BY MS. PETERSON:		10 include that information?	
11 Q. Why not?		11 A. Yes.	
12 A. The report was for them. It was their		12 Q. And what circumstances would those be?	
13 report.		13 A. If the customer feels as though that	
14 Q. Okay.		14 information will differentiate one result from	
15 A. They knew they were present.		15 another, sometimes that helps. For example, if we	
16 Q. Were you instructed by Trutek to not		16 were testing, say, the triboelectric charging of,	
17 include that information?		17 for example, a substance of some kind and one	
18 A. No.		18 person, say, is stronger or faster than the other	
19 Q. So that was a decision all on your own		19 person in triboelectrically charging a material,	
20 that it would not be necessary to include the		20 you would want to record who the person was that	
21 information because they knew they were there?		21 was performing the charging.	
22 A. It is not common to include in the		22 Q. Okay. And just to complete this out,	
23 report the names of all people present at a test.		23 did you provide -- or did you receive any	
24 Q. Is it common to include in the report		24 instructions from Trutek in any manner with	
25 the names of people who actively participate and		25 respect to whether this information about how the	

Transcript of Shane Burns

19 (73 to 76)

October 25, 2022

	73		75
1 samples were prepared should be included in your		1 represent to you that the first round of testing	
2 report?		2 was in July of 2019. That's around the time that	
3 A. Can you restate that question?		3 you did your first round of testing; correct?	
4 Q. Did you receive any instructions from		4 A. That's correct.	
5 Trutek in any manner about whether to include		5 Q. And his second round of testing was	
6 information in the report about who handled the		6 conducted in January of 2021. That's the same	
7 sample preparation?		7 time that you conducted your second round of	
8 A. No, I did not receive instructions from		8 testing; right?	
9 Trutek regarding this.		9 A. Yes, I was unaware that he had performed	
10 Q. Okay. So you weren't instructed by		10 another round of testing at that time.	
11 Trutek to include it, and you weren't instructed		11 Q. Okay. So you know about the first round	
12 by Trutek to not include it; is that correct?		12 of testing, but you did not know that he performed	
13 A. That's correct.		13 a second round of testing; is that --	
14 Q. Okay. Now, you're aware that Trutek		14 A. Correct.	
15 hired another individual to conduct electrostatic		15 Q. Okay. Thank you.	
16 testing of the Trutek and BlueWillow products;		16 Do you know Dr. Ermakov?	
17 right?		17 A. No.	
18 A. I am aware of that.		18 Q. Have you ever heard of him before?	
19 Q. His name is Dr. Alexi Ermakov; right?		19 A. I don't know.	
20 A. Yes.		20 Q. Outside of the context of this matter?	
21 Q. And did you review his report that he		21 A. I don't know.	
22 prepared in this matter directed to the testing		22 Q. Okay.	
23 that he conducted?		23 A. I've -- I meet with a lot of people who	
24 A. I've seen the report.		24 are involved in electrostatic characterization.	
25 Q. When did you first see the report?		25 So it would be difficult for me to recall whether	
	74		76
1 A. It was either after the first test or at		1 or not I've met him.	
2 the time of the first test.		2 Q. Okay. But you don't have any specific	
3 Q. Okay. So you saw it before you		3 recollection of having met him?	
4 conducted your second round of testing; right?		4 A. No, I don't believe so.	
5 A. I definitely saw it before I saw the --		5 Q. Did you ever speak with Dr. Ermakov	
6 before I performed the second round of testing,		6 about the testing that he conducted or that you	
7 yes.		7 conducted on behalf of Trutek?	
8 Q. And are you aware that Dr. Ermakov, just		8 A. I've never spoken to Dr. Ermakov, as far	
9 like you did, he also performed two rounds of		9 as I recall.	
10 testing on the same products?		10 Q. Okay. And you understand that	
11 A. Yes. I believe he performed -- I only		11 Dr. Ermakov -- he used a different method to test	
12 have the one report, though. I didn't see two		12 the surface electrostatic charge of the products;	
13 reports, but I believe he did test multiple		13 correct?	
14 substances --		14 A. I'm aware of that.	
15 Q. Okay.		15 Q. He used different equipment?	
16 A. -- in his test.		16 A. Correct.	
17 Q. Do you know -- the report that you saw		17 Q. And he used a different substrate to	
18 from Mr. Ermakov, would it have been a report that		18 test the materials?	
19 was prepared -- actually, I assume it was a report		19 A. Correct.	
20 prepared around the time that you did your first		20 MR. KREMEN: Objection to the form of	
21 round of testing; right?		21 the question.	
22 A. I don't know the exact date that		22 BY MS. PETERSON:	
23 Dr. Ermakov performed his testing, I'm sorry.		23 Q. And what is your assessment of	
24 Q. Okay. Well, I can represent to you -- I		24 Dr. Ermakov's testing?	
25 can show you the reports, as well, but I can		25 A. I will not make an assessment of	

Transcript of Shane Burns

20 (77 to 80)

October 25, 2022

	77		79
1 Dr. Ermakov's testing.		1 to make it dissipative will often use an	
2 Q. Why not?		2 insulative glass substrate.	
3 A. I'm not familiar with his equipment. I		3 Q. Okay. And so printer paper would fall	
4 haven't tested it myself. I haven't tried that		4 in that category?	
5 experiment myself. I am not familiar with his		5 A. Yes, it's an insulator. It does not	
6 history with this particular methodology. And I'm		6 conduct electricity by itself.	
7 not, I believe, adequately educated on his		7 Q. Okay. So if printer paper is an	
8 particular line of reasoning about this to make		8 insulator and doesn't conduct electricity by	
9 comment on it.		9 itself, would you expect to see an electrostatic	
10 Q. That's all fair. Thank you for that.		10 surface charge measured on just a plain piece of	
11 When you say that you're not adequately		11 printer paper?	
12 educated on his particular line of reasoning, is		12 A. You could, but that's why people	
13 there some aspect of his testing method that		13 generally neutralize it first, just like we did	
14 you're thinking about?		14 with the pigskin, remember.	
15 A. I'm not familiar --		15 Q. Okay. And have you ever used printer	
16 MR. KREMEN: You're calling for		16 paper as a substrate for measuring surface	
17 speculation on something that he said that he's		17 electrostatic charge of a composition, a liquid?	
18 not qualified to answer. If you can --		18 A. I've used cellulose, which is	
19 MS. PETERSON: He's pointed to an aspect		19 effectively a similar material.	
20 of Dr. Ermakov's testing methodology that he's not		20 Q. But you haven't used printer paper for	
21 adequately educated about. I'm just asking him		21 this type of testing?	
22 what aspect of the testing methodology he's		22 A. Not personally, no.	
23 speaking about.		23 Q. Okay.	
24 THE WITNESS: I've not reviewed the		24 MS. PETERSON: We can take that document	
25 construction of the machine that he used.		25 down for now. We'll be referring to it later	
	78		80
1 BY MS. PETERSON:		1 because I have some more specific questions. But	
2 Q. Okay.		2 for now let's -- I'd like to mark just for the	
3 A. I'm not familiar with the equipment that		3 record a copy of the deposition notice. We'll	
4 he's using.		4 mark this as Exhibit 24.	
5 Q. And what about the choice of using paper		5 (Burns Deposition Exhibit 24 was marked	
6 as a substrate, are you familiar with using		6 for identification and attached to the	
7 printer paper as a substrate on which to measure		7 transcript.)	
8 the surface electrostatic charge of a product?		8 THE REMOTE TECHNICIAN: Counsel, would	
9 A. People use insulative materials		9 you like me to screen share that for you or just	
10 frequently to measure charge of other items		10 mark it?	
11 because insulators are not going to -- of		11 MS. PETERSON: Let's mark it and screen	
12 themselves, unless they're triboelectrically		12 share it, please.	
13 charged, are not going to conduct electricity or		13 THE REMOTE TECHNICIAN: Okay. Stand by,	
14 allow electrons to flow across the surface of the		14 please.	
15 material. So that's not uncommon. It does occur.		15 BY MS. PETERSON:	
16 It's not -- well, it is used. So there are		16 Q. Dr. Burns --	
17 examples of this, of people doing this.		17 A. I'm not a doctor.	
18 Q. Okay. And just some terminology, I		18 Q. Mr. Burns, I'm sorry. I kept doing that	
19 apologize, this is not my particular area of		19 yesterday, too.	
20 expertise like it is for you, but you referred		20 Mr. Burns, this is just a court document	
21 using insulative material?		21 indicating that BlueWillow noticed your deposition	
22 A. Right. So things like paper, wood pulp,		22 to take place today. Have you seen this document	
23 other compounds, glass is an insulator unless it's		23 before?	
24 treated. And so some people who are developing		24 A. Yes, I believe that this was among the	
25 treatments for glass to make it more conductive or		25 exhibits that you and the other attorney had	

Transcript of Shane Burns

21 (81 to 84)

October 25, 2022

	81		83
1 agreed upon. And this was submitted to everybody		1 Anything else?	
2 involved, I think.		2 A. I don't believe I can remember anything	
3 Q. Okay. And you understand that you are		3 else. But I think there were a total of 11	
4 attending here, the deposition today, pursuant to		4 documents that were provided to me. Several of	
5 this deposition notice?		5 them were simply notices of-- that I'd be	
6 A. Yes.		6 depose -- like there was one that says I would be	
7 Q. Okay. Thank you.		7 deposed and so on.	
8 MS. PETERSON: We can take that down.		8 Q. Okay. Did you review any scientific	
9 BY MS. PETERSON:		9 articles or publications?	
10 Q. Mr. Burns, what did you do to prepare		10 A. No.	
11 for your deposition today?		11 Q. Okay. And did you meet with anyone to	
12 A. I had to retype effectively a résumé, a		12 prepare for the deposition today? And that could	
13 list of my qualifications. And so I created that.		13 be a meeting in person or by video or by	
14 And I printed out and reviewed some of the test		14 telephone.	
15 reports. I reread them.		15 A. Well, obviously I met with Stanley	
16 Q. Those would be your two test reports?		16 Kremen, who spoke with me about this.	
17 A. Correct.		17 Q. When was that meeting?	
18 Q. Did you review any other test reports?		18 A. I'll bring it up on my calendar. It was	
19 A. I believe there was a couple of		19 last week. I believe it was Monday.	
20 documents that were provided to me as part of		20 Q. And do you recall how long you spoke to	
21 these exhibits. There was the one by		21 him, approximately?	
22 Dr. Ermakov -- or contained the report of		22 A. It was Monday. And it was, I don't	
23 Dr. Ermakov, there's some information from a		23 know, a few hours.	
24 Dr. Lemmo, and there was some information from a		24 Q. So apart from the discussion with	
25 Dr. Amiji.		25 Mr. Kremen last Monday for a few hours, did you	
	82		84
1 Q. And did you review all of those		1 meet with or speak to anybody else as you were	
2 documents?		2 preparing for today's deposition?	
3 A. I read them as best I could, yes.		3 A. I had a couple of phone calls with	
4 Q. Okay. And with respect to Dr. Ermakov,		4 Mr. Kremen. There was some uncertainty as to	
5 you said you only received one report?		5 whether the deposition would be today or if it	
6 A. Well, I have the same reports that		6 would be later on.	
7 everybody else had in the exhibits that you		7 Q. Okay.	
8 provided.		8 A. And there was a request that I change	
9 Q. I didn't provide you with anything. So		9 the format of my résumé because numbered	
10 I don't know what it is that had you were given.		10 formatting was better for him.	
11 A. Yeah, I believe I have one report from		11 Q. Okay. Did you meet with or have any	
12 Dr. Ermakov.		12 conversations with any Trutek personnel?	
13 Q. Okay. And it's the 2019 report?		13 A. I did speak with Mr. Wahi briefly.	
14 A. Let me look, I don't know if a date is		14 Q. And when was that conversation?	
15 on it. Yeah, I think it's 2019.		15 A. The other night, last night.	
16 Q. I think the date is all the way down at		16 Q. Last night?	
17 the bottom.		17 A. Uh-huh.	
18 A. Yeah, there it is.		18 Q. And what did you discuss with Mr. Wahi?	
19 Q. Okay. Apart from your two reports and		19 A. I would be coming in and I would be	
20 the Ermakov, Lemmo, and Amiji reports, did you		20 deposed today and that I was ready to be deposed.	
21 review any other documents to prepare for your		21 Q. What else? What else did you talk	
22 deposition today?		22 about?	
23 A. There was a résumé of sorts or a list of		23 A. There had been a deposition yesterday.	
24 qualifications from Dr. Amiji. It was quite long.		24 Q. Did you review the transcript of that	
25 Q. It is.		25 deposition?	

Transcript of Shane Burns

22 (85 to 88)

October 25, 2022

	85		87
1 A. No.		1 and Mr. Wahi were on the phone. So...	
2 Q. And what did Mr. Wahi tell you about		2 Q. Okay. And it was just that one call?	
3 yesterday's deposition?		3 A. I believe so, yeah.	
4 A. Nothing, really. I believe Dr. Lemmo		4 Q. And was there anybody else present for	
5 had been deposed.		5 that phone call besides Mr. Kremen and Mr. Wahi?	
6 Q. That's correct.		6 A. No, I was at home with my family. So we	
7 Did Mr. Wahi discuss the substance of		7 really didn't have time to talk to anybody at any	
8 Dr. Lemmo's deposition testimony with you in any		8 length.	
9 way?		9 Q. Okay. Did Mr. Wahi or Mr. Kremen ask	
10 A. I have no idea what Dr. Lemmo said.		10 you to do anything else before your deposition	
11 Q. Okay. So he didn't -- did Mr. Wahi talk		11 started today to prepare?	
12 to you about the types of questions that I asked		12 A. They told me to look over the documents	
13 Dr. Lemmo yesterday?		13 provided, but that was it. Why, do I seem	
14 A. I don't believe he mentioned anything		14 prepared?	
15 specific, no.		15 Q. You do seem prepared, but it also, you	
16 Q. And this conversation was last night;		16 know, seems like you're really struggling to come	
17 right?		17 up with an answer to these questions. So I'm just	
18 A. Yes.		18 trying to explore, you know, what it is that was	
19 Q. So you feel fairly certain that you can		19 discussed.	
20 recall the conversation?		20 A. No, I'm answering as best as I can.	
21 A. Yes, he didn't mention any specific		21 Most of the things I have to say pertain to what's	
22 questions, I don't believe.		22 been written down. The whole point of writing it	
23 Q. Did he mention anything general about		23 down is so I wouldn't have to remember it. That's	
24 the questions that were discussed at the		24 why I write reports.	
25 deposition?		25 Q. Yeah.	
	86		88
1 A. I don't believe he mentioned anything,		1 A. There's something, like, a 100 or so	
2 no.		2 customers that I deal with every year that I	
3 Q. Did he provide any advice to you or any		3 perform testing for.	
4 guidance as to how to prepare for the deposition		4 Q. Sure. Yeah.	
5 or how to answer questions today?		5 A. So, you know, that's the whole point of	
6 MR. KREMEN: Objection.		6 the report, so I don't have to off the top of my	
7 You may answer.		7 head remember a particular test.	
8 THE WITNESS: Just be truthful and, you		8 Q. Yeah. No, I can tell from your résumé	
9 know, answer truthfully. That's just as a matter		9 you've certainly done a lot of this. So I	
10 of course.		10 understand the need to have it documented so that	
11 BY MS. PETERSON:		11 you can recall, absolutely.	
12 Q. Did he say anything else?		12 So you said that most of the things that	
13 A. I don't remember him mentioning anything		13 you have to say pertain to what's been written	
14 that I wasn't already aware of. You would be		14 down. You mean most of the things that you had to	
15 asking me questions. And it went for a long time		15 say during the deposition today?	
16 yesterday, I guess. So...		16 A. Well, regarding this particular test.	
17 Q. How long was your conversation with		17 Q. Okay.	
18 Mr. Wahi last night?		18 MS. PETERSON: Okay. Let's go ahead and	
19 A. I don't know, two minutes.		19 mark a copy of that résumé. We'll mark that as	
20 Q. So it was really short?		20 Exhibit 25.	
21 A. Yeah.		21 (Burns Deposition Exhibit 25 was marked	
22 Q. Okay. And did you have any other		22 for identification and attached to the	
23 conversations with Trutek's lawyers or any Trutek		23 transcript.)	
24 personnel yesterday?		24 THE REMOTE TECHNICIAN: Okay. Stand by	
25 A. It was a conference call. Mr. Kremen		25 please.	

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Transcript of Shane Burns

23 (89 to 92)

October 25, 2022

	89		91
1	BY MS. PETERSON:	1	acceptance criteria for assemblies, electronic
2	Q. Mr. Burns, do you recognize Exhibit 25	2	assemblies.
3	as a copy of the résumé that you just updated?	3	Q. Okay.
4	A. Yeah, I have it.	4	A. So printed circuit boards, wiring, you
5	Q. Okay. And do you have any other changes	5	know, things like that. Along with that came some
6	or updates to make to this résumé?	6	handling and expertise on what electrostatic
7	A. I don't think so, no.	7	phenomena was. It was very nice to get that kind
8	Q. And how would you describe your current	8	of training.
9	occupation?	9	Q. Okay. And then it looks like you've got
10	A. My title is test lab manager.	10	10 a section on industry standards committees. So
11	Q. And what would you consider to be your	11	11 you're a member of that particular committee, and
12	12 field of expertise?	12	12 you have been since 2019?
13	A. Mostly electrostatic characterization	13	A. Yeah, Working Group 11. I would sit in
14	testing, calibration of equipment, and things	14	and listen before that, but I don't believe I was
15	having to do with electrostatics, electronics, and	15	a member until that point. Because the rules of
16	resistance voltage, triboelectric charge, things	16	16 the ESDA are that you have to attend, I believe,
17	like that.	17	17 at least one meeting in person, and at the time I
18	Q. Okay. Thank you.	18	18 was pretty distant from them. So I was only able
19	Have you ever had a patent applied for	19	19 to attend virtually most of the time.
20	20 in your name?	20	Q. Okay. And what is Working Group 11?
21	A. I don't think so, no.	21	A. So this is the working group that
22	Q. And do you recall if you've ever had any	22	22 oversees -- they're called the packaging
23	23 papers or presentations or posters published?	23	23 committee, but they actually oversee the standards
24	A. Nothing worth bragging about.	24	24 that tell you certain types of test methods. Any
25	Q. Okay. I didn't mean to imply there	25	25 test method in their group that starts with 11,
		90	
1	shouldn't be anything. There's just some things	1	1 most of it having to do with resistance, static
2	2 that I need to check off my list.	2	2 shielding and triboelectric charge. And so they
3	3 And I see that you have a bachelor's	3	3 oversee the test standards and documentation
4	4 degree in history that you received in 2006;	4	4 regarding those test methods.
5	5 right?	5	Q. Okay. And it looks like you've been
6	A. Yeah.	6	6 with Electro-Tech Systems since September 2016.
7	Q. And it looks like you have an Associate	7	7 So that's a little over six years; right?
8	8 of Applied Science degree in engineering	8	A. Yeah, I don't know why I put four years.
9	9 technology that you received in 2014; right?	9	I apologize for that.
10	A. Correct.	10	Q. That's okay.
11	Q. Okay. Under "Certifications," where it	11	And this is your current job title, test
12	12 refers to ESD Program Manager certification,	12	laboratory manager?
13	13 that's what you were explaining earlier before	13	A. Yes.
14	14 about electrostatic discharge?	14	Q. And you've had that position since 2020;
15	A. That's one way that I have some training	15	15 right?
16	in this.	16	A. That's correct.
17	Q. No, I just meant the ESD. That stands	17	Q. Okay. If we look down at item No. 7 at
18	18 for electrostatic discharge?	18	18 the bottom of the page, I see you have listed here
19	A. Yes.	19	19 that you performed hands-on standard and custom
20	Q. Okay. At the bottom of the	20	20 testing -- and this is since 2000- -- and then I
21	21 certification list, there's a reference to an	21	21 guess since 2016, that would be your time as lead
22	22 IPC 610 Certified IPC Specialist. What is that?	22	22 test technician; is that right?
23	A. So when I first got involved in the	23	A. Correct.
24	electronics industry, this was a training that was	24	Q. And so this is what you were referring
25	available where they would train you on proper	25	25 to earlier about having different categories of

Transcript of Shane Burns

24 (93 to 96)

October 25, 2022

	93		95
1 testing within the company, either standard or 2 custom?		1 A. Well, it's difficult because the 2 industry standards are mostly dealing with taking 3 a solid object and charging it in some way, often 4 by rolling it down an incline plane or by rubbing 5 it on something to measure the electrostatic 6 charge. And a lot of documentation on how to 7 measure a charge on the material is still being 8 developed.	
3 A. Yeah, that's correct. 4 Q. So can you -- what's the difference 5 between the standard and the custom testing 6 services that ETS provides?		9 Q. Okay. So can you identify -- I mean, 10 let me rephrase that.	
7 A. Standard testing is testing which one 8 that there is already an industry standard 9 document for; right? And there's customization to 10 it. You're literally following the document 11 verbatim.		11 Are there any elements of the testing 12 that you conducted for Trutek that do fit with an 13 industry standard?	
12 Custom testing is usually testing in 13 which the customer has some requirements where 14 there's an unusual element to it that does not fit 15 within common industry test standards. And so 16 what you try to do is you try to make it fit as 17 best you can, but noting anything that, say, is 18 not something that was documented in the standard.		14 A. Yes. So the use of a Faraday cup and a 15 NanoCoulomb Meter is a pretty standard piece of 16 equipment that people use.	
19 Q. Okay. So for custom -- and I think you 20 confirmed earlier that the testing that you did 21 for Trutek was custom testing; right?		17 Q. Okay.	
22 A. That's correct.		18 A. That's common.	
23 Q. And are there any common -- actually, 24 just are there any industry test standards that 25 you followed when conducting the Trutek testing?		19 Q. Okay.	
1 A. We were trying to imitate as much as we 2 could common industry standards or common industry 3 practices for measuring electrostatic charge on an 4 object. However, most of these test standards 5 weren't really written with a gel or a liquid in 6 mind necessarily.	94	20 A. And the use of the ionizer, that's 21 typical when you're performing this kind of 22 testing.	
7 Q. Okay. And are there any common industry 8 test standards for measuring electrostatic charge 9 on pigskin?		23 Q. Okay. When you say that the ionizer is 24 typical, are you talking about the particular 25 equipment that you used that's a standard piece of	
10 A. At this time, none have been written 11 yet.		1 equipment?	
12 Q. So there were at least two aspects to 13 the testing that were custom in the sense that 14 you're using it, the testing of liquids for 15 electrostatic surface charge and the testing on 16 pigskin as the substrate; is that right?		2 A. The ionizer was used to neutralize the 3 pigskin in this case. I believe I mentioned that 4 earlier. So it's an air ionizer, and it's blowing 5 air so that there's movement of ions that it's 6 emitting. And it's emitting an equal amount of 7 positive and negative ions so that if there's a 8 positive charge on a material, it attracts the 9 negative ions. If there's a negative charge on 10 the material, it attracts the positive ions and 11 thus neutralizes any charge that may preexist on a 12 material. And this would enable us to measure 13 just the substance we were applying, not the 14 substrate.	
17 A. Correct. At least I'm not aware of any.		15 Q. Okay. And so you had said earlier that 16 the use of the ionizer, that's typical when you're 17 performing this kind of testing?	
18 Q. Okay. And are there any other elements 19 or aspects to the testing that you performed for 20 Trutek that did not precisely match up with an 21 industry standard?		18 A. Correct.	
22 A. Can you rephrase that question?		19 Q. Okay. So, basically, using an ionizer 20 on the substrate --	
23 Q. Okay. So we identified two aspects to 24 the testing that don't match up with an industry 25 standard. Are there any others?		21 A. To neutralize --	
		22 Q. -- before you applied the test material 23 to the substrate, that's in your view a pretty 24 typical standard approach?	
		25 A. Yes. So you're neutralizing any	

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Transcript of Shane Burns

25 (97 to 100)

October 25, 2022

	97		99
1 preeexisting charge on any object to which you're		1 I see that you identify liquids; right?	
2 applying a substance or a charge.		2 A. I have performed tests on liquids, yeah.	
3 Q. Okay. Are you aware of any formal		3 Q. Okay. Have you performed tests on	
4 written standards describing that?		4 liquids to measure the -- to measure its	
5 A. Yes. Uh-huh.		5 electrostatic charge before?	
6 Q. What are they?		6 A. Not in this way.	
7 A. So if you looked up, you could see that		7 Q. When you say "not in this way," what way	
8 one of the standards that I referenced was		8 are you talking about?	
9 ANSI/ESD ADV11.2. And that's a document that was		9 A. I don't remember doing it -- doing --	
10 written in 1995, and it was written by the ESD		10 measuring charge, specifically. Voltage and other	
11 association. And what they were attempting to do		11 things, but that was -- those were other	
12 at the time was create a document that contained a		12 applications. This was -- those applications	
13 set of test methods for recording charge on		13 would not have applied here.	
14 objects.		14 Q. Okay. And then before you were employed	
15 Q. Okay. And this particular standard test		15 at ETS, it looks like you worked for several years	
16 method also describes the ionization process that		16 at EFE Laboratories; right?	
17 you referred to?		17 A. Yes.	
18 A. Yes.		18 Q. And it looks like you were involved in	
19 Q. Okay.		19 production work there, is that generally correct?	
20 A. It mentions an ionizer.		20 A. I started in production work there. I	
21 Q. Does this test method address the use of		21 didn't stay in production work there the entire	
22 pigskin as a substrate?		22 time, but yes, I was involved --	
23 A. No.		23 Q. Okay.	
24 Q. What does it say about the substrate?		24 A. -- in production there for a while.	
25 A. So there are actually several different		25 Q. Okay. Yeah.	
	98		100
1 test methods listed in that document. And some of		1 So on your résumé, it looks like you	
2 the substrates are insulators, such as silica --		2 also -- yeah, I know there's a lot of other stuff	
3 glass -- glass and -- sorry, glass and Teflon is		3 listed there, but it doesn't look like you were	
4 another one mentioned.		4 performing any type of testing or consulting	
5 Q. Okay. But it doesn't address the use of		5 services while at EFE Laboratories; right?	
6 pigskin?		6 A. No, I didn't really do any testing or	
7 A. No.		7 consulting while I was -- well, not as relates to	
8 Q. Does it address the use of any		8 this particular topic.	
9 alternative skin models?		9 Q. Okay.	
10 A. No.		10 A. I did do some what could be called	
11 Q. So, like, no other animal skin; right?		11 consulting, but it didn't have to do with	
12 A. No.		12 electrostatic decay or a charge or anything like	
13 Q. Or human cadaver skin?		13 that.	
14 A. No.		14 Q. Okay.	
15 Q. Have you ever performed a test using		15 MS. PETERSON: I'm at another good	
16 human cadaver skin as the substrate?		16 breaking point right now. How about we go off the	
17 MR. KREMEN: Yuck.		17 record.	
18 THE WITNESS: No.		18 THE VIDEOGRAPHER: We're going off the	
19 BY MS. PETERSON:		19 record. The time is now 12:44 p.m.	
20 Q. Okay. Still looking at Exhibit 25 and		20 (Recess from the record.)	
21 Item 7 of your résumé, if we could scroll -- well,		21 THE VIDEOGRAPHER: We're back on the	
22 actually, in Item 7D it says that you've tested a		22 record. The time is now 1:32 p.m.	
23 wide variety of materials for material and product		23 MS. PETERSON: Just one housekeeping	
24 qualification.		24 matter, Matthew, if we could make sure that the	
25 And then partway down through that list,		25 transcript also indicates that Mr. Wahi is present	

Transcript of Shane Burns

26 (101 to 104)

October 25, 2022

	101	103
1 for the deposition, I would appreciate that, 2 because I don't think he was introduced earlier. 3 Okay. And then, Jennifer, I dropped 4 into the folder a new exhibit over lunch. I was 5 wondering if we could pull that up and mark it as 6 Exhibit 26. 7 (Burns Deposition Exhibit 26 was marked 8 for identification and attached to the 9 transcript.) 10 THE REMOTE TECHNICIAN: Sure. Is that 11 in the repository, the link that Planet Depos -- 12 MS. PETERSON: Yeah, I used the link to 13 upload it. The file name says NasalGuard. 14 THE REMOTE TECHNICIAN: Okay. Just give 15 me a minute or two to download it. Do you want it 16 marked and presented right now? 17 MS. PETERSON: Yeah. 18 THE REMOTE TECHNICIAN: Okay. Okay. 19 Yeah, just give me a minute. I need to go to the 20 link and download it from the repository. 21 MS. PETERSON: Okay. 22 THE REMOTE TECHNICIAN: Thank you. 23 MR. KREMEN: And what is that exhibit? 24 MS. PETERSON: We'll be displaying it, 25 Stan, once she has it.	1 ETS over the last six years approximately has been 2 devoted to measuring the surface electrostatic 3 charge of products? 4 A. A lot of it. Measuring the charge of 5 products? 6 Q. Well, measuring the surface 7 electrostatic charge. 8 A. Yeah, I don't know the exact number of 9 hours. Are you looking for a number of hours or 10 how many years? I was performing testing on 11 objects for a charge using a NanoCoulomb Meter and 12 Faraday cup from 2017 onward. 13 Q. Okay. I mean, and I guess looking back 14 at your résumé -- which I don't appear to have up 15 anymore. 16 A. They can put it up on the screen like we 17 had it on the screen before. 18 THE REMOTE TECHNICIAN: Yeah, Counsel, 19 I'm ready for you whenever. 20 MS. PETERSON: Okay. We'll come back to 21 that then. So, yeah, let's pull up this new 22 exhibit. 23 BY MS. PETERSON: 24 Q. Okay. So we've marked as Exhibit 26 an 25 image -- or a picture of one of the NasalGuard	
	102	104
1 I guess in the meantime, Jennifer, while 2 you're doing that, I can go forward with some 3 other questions so we're not wasting everyone's 4 time. 5 THE REMOTE TECHNICIAN: Okay. 6 BY MS. PETERSON: 7 Q. Mr. Burns, do you have any experience in 8 testing oil-in-water nanoemulsions? 9 A. Not that I know of. 10 Q. And that would also -- 11 A. The customers don't typically tell me -- 12 well, sometimes they tell me, but they don't 13 always tell me what the materials are made of -- 14 Q. Okay. 15 A. -- that I'm testing. 16 Q. So you're not aware of having ever 17 tested an oil-in-water nanoemulsion. 18 A. No one has informed me that I was 19 testing that. 20 Q. Okay. And so I would assume that also 21 means you're not aware of ever having tested an 22 oil-in-water nanoemulsion for electrostatic charge 23 either; right? 24 A. No. 25 Q. Okay. What percentage of your work at	1 products. 2 Do you see that, Mr. Burns? 3 A. Yeah, I see it. 4 Q. And you see that there's -- there 5 appears to be a box, the packaging, plus a 6 container containing this fine mist nasal spray; 7 right? 8 A. I see that, yes. 9 Q. So for the products that you tested in 10 your first round of testing, did the samples come 11 to you in packaging like this? 12 A. No. 13 Q. Okay. So they weren't contained within, 14 like, the retail box? 15 A. If this is what the retail box is, no, I 16 didn't get it in the retail box. 17 Q. Okay. And then the mist container 18 that's sitting there to the right, did you receive 19 the samples that you tested in this retail 20 container? 21 A. There was a white bottle. I don't 22 remember it having that nozzle on it, and I don't 23 recall it having a label like this. 24 Q. Okay. And did you receive the products 25 in this form of packaging or in this container for	

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Transcript of Shane Burns

27 (105 to 108)

October 25, 2022

	105		107
1 the second round of testing that you did?		1 Q. When you received the Blue Willow NanoBio	
2 A. No.		2 Protect samples for testing, did it come in	
3 MS. PETERSON: Okay. And let's scroll		3 packaging like this?	
4 down to the next -- this document actually has two		4 A. I don't remember this box, no. I'm	
5 pages.		5 pretty sure it wasn't in a -- is this a cardboard	
6 BY MS. PETERSON:		6 box we're looking at? Yeah.	
7 Q. So this is another -- an image of		7 Q. Yeah.	
8 another NasalGuard product, the Airborne Particle		8 A. I don't think it came in a box like	
9 Blocker. And it looks like there's two types of		9 this -- or at least --	
10 packaging, but you could see there's a picture of		10 Q. Okay.	
11 the tube that the product comes in; right?		11 A. -- they didn't have the box with them at	
12 A. Yeah, the tube looks a little familiar,		12 the time that they used it.	
13 but I don't recall having one that had a green cap		13 Q. Okay.	
14 like that or -- and I didn't really examine the		14 A. Is that fair?	
15 writing on the package too closely at the time		15 Q. Sure.	
16 that we performed testing. So...		16 And the -- whatever container you	
17 Q. Okay. So you can't be sure whether it		17 received for the NanoBio Protect product, did it	
18 has this same logo and image --		18 contain that NanoBio Protect kind of logo in	
19 A. No.		19 colors?	
20 Q. -- and writing that's shown here on the		20 A. No.	
21 retail packaging?		21 Q. Okay.	
22 A. No. And as I said, that was not		22 MS. PETERSON: You can take that down.	
23 relevant to the test that I performed. The		23 BY MS. PETERSON:	
24 packaging --		24 Q. And then let's go back to your résumé,	
25 Q. Yeah, I understand that you don't think		25 which has been marked as Exhibit 25. And let's	
	106		108
1 it's relevant to the test that you performed. I'm		1 look at page 2. All the way down at the bottom	
2 just trying to get a better understanding of the		2 under Item 7, I see that you have listed here that	
3 samples that were provided to you.		3 you've performed over 640 individual standard and	
4 But they did not look exactly like this?		4 custom tests.	
5 A. No.		5 A. Yes.	
6 Q. Okay.		6 Q. Does that sound about right?	
7 MS. PETERSON: We could take that		7 A. Uh-huh.	
8 exhibit down.		8 Q. Okay. And just roughly speaking, what	
9 And then I'd like to pull up an exhibit		9 percentage of those tests involved measuring the	
10 that was marked yesterday during Dr. Lemmo's		10 surface electrostatic charge of a material?	
11 deposition. It would be Exhibit 13 --		11 A. I don't know the percentage. I would	
12 (Deposition Exhibit 13, Previously		12 have to look that up. But I do a few a year, say	
13 Marked.)		13 four, five a year that's charged instead of	
14 MS. PETERSON: -- which for the record		14 voltage or some other phenomena, electrostatic	
15 is Dr. Lemmo's opening report.		15 phenomena.	
16 THE REMOTE TECHNICIAN: Stand by,		16 Q. Okay. And out of those four or five a	
17 Counsel.		17 year, how many typically would involve testing the	
18 MS. PETERSON: And if we go to page 8,		18 electro -- the surface electrostatic charge of a	
19 which is page 11 of the PDF. And maybe zoom in on		19 liquid?	
20 that picture at the bottom.		20 A. I don't think more than one or two,	
21 BY MS. PETERSON:		21 ever.	
22 Q. Mr. Burns, this is a picture that was		22 Q. So one or two over the entire course of	
23 included in Dr. Lemmo's expert report of the		23 your six --	
24 packaging for NanoBio Protect. Okay?		24 A. Yes.	
25 A. Okay.		25 Q. -- years at --	

Transcript of Shane Burns

28 (109 to 112)

October 25, 2022

	109	111
1 A. Correct.	1 I keep bringing this up, but your testimony is	
2 Q. -- at ETS?	2 that you have never tested the electrostatic	
3 Okay. And does that include the tests	3 charge of a product on pigskin before; right?	
4 that you ran for Trutek, or is that in addition to		
5 the tests that you ran for Trutek?		
6 A. Excluding the tests I ran for Trutek.	4 A. Correct.	
7 Typically liquids are not tested this way, only	5 Q. Okay. Would you expect that a product	
8 rarely.	6 applied to human skin would exhibit the same	
9 Q. Okay. So -- well, you did two tests for	7 surface electrostatic charge as when it's applied	
10 Trutek. So does that mean that apart from --	8 to pigskin?	
11 A. So if you include the two tests from	9 A. I don't know. I'd have to perform that	
12 Trutek, that would be something like four, a	10 test.	
13 handful at most.	11 Q. And I assume you were not asked to	
14 Q. Oh, okay. That's what I was trying to	12 perform any test to establish that relationship.	
15 understand. So there were the two tests for		
16 Trutek, and then apart from that, you've done it	13 A. How do you propose to perform such a	
17 maybe one or two other times?	14 test? No, I did not perform any test on actual	
18 A. Yeah, and I'm not going to name those	15 human flesh.	
19 customers, by the way. That's -- I'm not going to	16 Q. Okay. That's not -- okay.	
20 bring them up, but --	17 So when you say that you can't answer	
21 Q. That's --	18 the question because you would have to perform	
22 A. As far as liquids -- the charge on	19 that test, you're saying you would have to	
23 liquids being measured, it's not common.	20 actually test the product on human skin?	
24 Q. Yeah, that's fine. And I don't need to	21 A. You're asking me what kinds of tests --	
25 know the customer.	22 if it was similar -- if a test on the pigskin is	
	23 similar to a test on human skin, I don't know. I	
	24 don't know. I don't know the answer to that	
	25 question. It might be identical. It might be the	
	110	112
1 But in those one or two other instances,	1 same. I don't know. I have not performed that	
2 was it a standard test or a custom test that you	2 test.	
3 performed?	3 Q. Okay.	
4 A. It was custom. Yeah, it would be	4 A. You're asking me to talk about something	
5 custom.	5 I don't know anything about.	
6 Q. Okay. And would you say that the test	6 Q. That's a fair answer. If you don't	
7 method that you performed in those one or two	7 know, you don't know. That's quite all right. We	
8 other instances, was it consistent with the	8 can move on. Don't worry about it.	
9 testing that you conducted for Trutek?	9 So before you conducted the testing for	
10 A. No.	10 Trutek, did anybody else test the technique that	
11 Q. How was it different?	11 you were planning to use for accuracy?	
12 A. Well, as you've indicated or what you're	12 A. The identical technique or -- a	
13 really asking is: Did I use pigskin in those?	13 similar -- the same equipment has been used on	
14 No, I did not use pigskin in any other test.	14 other tests before, yes. A lot of people have	
15 Q. Actually, that wasn't even what I was	15 performed tests using a NanoCoulomb Meter and	
16 getting at.	16 Faraday cup.	
17 A. Oh --	17 Q. Okay. And did anybody test, you know,	
18 Q. I was wondering about the other aspects	18 the technique that you used involving pigskin?	
19 of the testing procedure. Like the number of	19 A. I am unaware of anyone testing pigskin	
20 samples that were tested or the number of	20 of any kind at any time. I don't know.	
21 replicates or the equipment that you used, was		
22 that all generally consistent?	21 Q. Okay. And that would be true for people	
23 A. That varies from one customer to the	22 within ETS, as well as just generally outside the	
24 next.	23 company?	
25 Q. Okay. And just to confirm, I apologize	24 A. I don't know. I never asked the prior	
	25 ownership whether they had ever tested pigskin.	

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Transcript of Shane Burns

29 (113 to 116)

October 25, 2022

	113		115
1 It's not something that occurred to me to ask		1 that it was a patent, and I'm not an expert in	
2 them.		2 patents. So I can't even tell you what it is	
3 Q. Are you aware of whether anybody has		3 trying to say.	
4 published on a technique for testing the		4 Q. Okay. Did Mr. Wahi ever explain	
5 electrostatic charge of a liquid on pigskin?		5 anything to you about the patent?	
6 A. There are published techniques that talk		6 A. I believe that he mentioned that he had	
7 about testing electrostatic charge on an object.		7 a patent on his NasalGuard product when he first	
8 It doesn't matter what the object is necessarily.		8 began working with me. So it did come up that he	
9 It's the same technique. You take the object and		9 had patented or was patenting products that he	
10 you put it in the Faraday cup and it's connected		10 makes --	
11 to a NanoCoulomb Meter and then you record the		11 Q. Okay.	
12 reading.		12 A. -- and that they were among the	
13 Q. Okay.		13 substances that I was going to be testing.	
14 A. It doesn't matter what the thing is that		14 Q. Okay. Did he provide you with any other	
15 you stick in the cup.		15 information about the subject matter of the	
16 Q. Okay. Well, apart from that, are you		16 patent?	
17 aware of anybody publishing on a technique for		17 A. No, and I don't believe he even -- had	
18 measuring electrostatic charge of a liquid		18 not even provided me that document at that time.	
19 specifically on pigskin? Have you ever seen that		19 Q. Okay.	
20 published anywhere?		20 A. So I don't even know if it was written	
21 A. There are no techniques anywhere that		21 yet. I didn't look at the date on the document as	
22 specify pigskin --		22 provided to me.	
23 Q. Okay.		23 Q. Sure.	
24 A. -- as far as I know.		24 Did Mr. Kremen ever provide you with any	
25 Q. Okay. And do you know if there are any		25 explanation of the subject matter of the patent?	
	114		116
1 known error rates associated with measuring		1 A. It is a patent, and it's a patent for	
2 electrostatic charge of a liquid on pigskin?		2 Mr. Wahi's product. I know that. But, otherwise,	
3 A. No. Because if they had not published a		3 I didn't feel as though it was necessary for me to	
4 paper specifically on testing with pigskin, how		4 know anything further.	
5 would they have published documentation on the		5 Q. No, I agree, that makes sense. I'm just	
6 error rate.		6 wondering if anybody did explain the patent to	
7 Q. So your answer is no, you're not aware		7 you?	
8 of anything?		8 A. If they did, it's all lawyer talk to me	
9 A. No, I'm not aware of any.		9 so I have no idea what it says.	
10 Q. Okay. Mr. Burns, do you have any		10 Q. Well, do you remember if anyone	
11 understanding as to the fact that this litigation		11 explained the patent to you?	
12 involving Trutek involves a patent? Are you aware		12 A. If they did, I wasn't listening, I'm	
13 of that?		13 sorry.	
14 A. A patent, I believe, was one of the		14 Q. Okay.	
15 documents that has been discussed.		15 A. I'm sorry, I don't know anything about	
16 Q. Okay.		16 patents. I apologize.	
17 A. Or was provided with the -- along with		17 Q. You don't need to apologize for it. I'm	
18 the test report from Dr. Ermakov and the immensely		18 just trying to understand what other information	
19 long résumé from Dr. Amiji. So, yes, it's one of		19 you were given to consider as part of your	
20 the many documents that I believe is involved. I		20 testing.	
21 did not read the patent, sorry.		21 A. I don't think that the contents of a	
22 Q. That's okay. I wouldn't have expected		22 patent would have affected the test outcome.	
23 you to.		23 Q. Okay.	
24 Did you look at the patent at all?		24 A. The test -- they could have labeled the	
25 A. I glanced at it long enough to realize		25 substances A, B, C, and D and I still would have	
	113		115
1 It's not something that occurred to me to ask		1 that it was a patent, and I'm not an expert in	
2 them.		2 patents. So I can't even tell you what it is	
3 Q. Are you aware of whether anybody has		3 trying to say.	
4 published on a technique for testing the		4 Q. Okay. Did Mr. Wahi ever explain	
5 electrostatic charge of a liquid on pigskin?		5 anything to you about the patent?	
6 A. There are published techniques that talk		6 A. I believe that he mentioned that he had	
7 about testing electrostatic charge on an object.		7 a patent on his NasalGuard product when he first	
8 It doesn't matter what the object is necessarily.		8 began working with me. So it did come up that he	
9 It's the same technique. You take the object and		9 had patented or was patenting products that he	
10 you put it in the Faraday cup and it's connected		10 makes --	
11 to a NanoCoulomb Meter and then you record the		11 Q. Okay.	
12 reading.		12 A. -- and that they were among the	
13 Q. Okay.		13 substances that I was going to be testing.	
14 A. It doesn't matter what the thing is that		14 Q. Okay. Did he provide you with any other	
15 you stick in the cup.		15 information about the subject matter of the	
16 Q. Okay. Well, apart from that, are you		16 patent?	
17 aware of anybody publishing on a technique for		17 A. No, and I don't believe he even -- had	
18 measuring electrostatic charge of a liquid		18 not even provided me that document at that time.	
19 specifically on pigskin? Have you ever seen that		19 Q. Okay.	
20 published anywhere?		20 A. So I don't even know if it was written	
21 A. There are no techniques anywhere that		21 yet. I didn't look at the date on the document as	
22 specify pigskin --		22 provided to me.	
23 Q. Okay.		23 Q. Sure.	
24 A. -- as far as I know.		24 Did Mr. Kremen ever provide you with any	
25 Q. Okay. And do you know if there are any		25 explanation of the subject matter of the patent?	
	114		116
1 known error rates associated with measuring		1 A. It is a patent, and it's a patent for	
2 electrostatic charge of a liquid on pigskin?		2 Mr. Wahi's product. I know that. But, otherwise,	
3 A. No. Because if they had not published a		3 I didn't feel as though it was necessary for me to	
4 paper specifically on testing with pigskin, how		4 know anything further.	
5 would they have published documentation on the		5 Q. No, I agree, that makes sense. I'm just	
6 error rate.		6 wondering if anybody did explain the patent to	
7 Q. So your answer is no, you're not aware		7 you?	
8 of anything?		8 A. If they did, it's all lawyer talk to me	
9 A. No, I'm not aware of any.		9 so I have no idea what it says.	
10 Q. Okay. Mr. Burns, do you have any		10 Q. Well, do you remember if anyone	
11 understanding as to the fact that this litigation		11 explained the patent to you?	
12 involving Trutek involves a patent? Are you aware		12 A. If they did, I wasn't listening, I'm	
13 of that?		13 sorry.	
14 A. A patent, I believe, was one of the		14 Q. Okay.	
15 documents that has been discussed.		15 A. I'm sorry, I don't know anything about	
16 Q. Okay.		16 patents. I apologize.	
17 A. Or was provided with the -- along with		17 Q. You don't need to apologize for it. I'm	
18 the test report from Dr. Ermakov and the immensely		18 just trying to understand what other information	
19 long résumé from Dr. Amiji. So, yes, it's one of		19 you were given to consider as part of your	
20 the many documents that I believe is involved. I		20 testing.	
21 did not read the patent, sorry.		21 A. I don't think that the contents of a	
22 Q. That's okay. I wouldn't have expected		22 patent would have affected the test outcome.	
23 you to.		23 Q. Okay.	
24 Did you look at the patent at all?		24 A. The test -- they could have labeled the	
25 A. I glanced at it long enough to realize		25 substances A, B, C, and D and I still would have	

Transcript of Shane Burns

30 (117 to 120)

October 25, 2022

	117	119
1 performed the test and the results would have been 2 recorded and then they could decipher what A, B, 3 C, and D meant, so which substance is which. In 4 fact, some customers do that. They provide me 5 materials for blind testing so that they and 6 another person have an objective third party who 7 is unaware as to which one is which.	1 A. Yes. 2 Q. Are there any further -- sorry, were 3 there any earlier versions of the report created? 4 A. I wouldn't remember that unless I 5 recorded it there in that revision history. So 6 typically if there is a revision, I would record 7 it right there in that box. 8 Q. Okay. And have you made any further 9 revisions to the report?	
8 Q. Okay. Let's go back to your report now. 9 MS. PETERSON: So this is Exhibit 23. 10 If we could pull that up. 11 BY MS. PETERSON: 12 Q. Mr. Burns, when you prepared this 13 report, did you review any other materials or 14 information apart from what's recorded directly in 15 the report?	10 A. What you have there is, I believe, the 11 actual final version. 12 Q. Okay. So it has -- you have not issued 13 any further revisions? 14 A. As far as I know, no. There was an 15 earlier version of the report. So there are 16 actually two reports that were done the same day, 17 and these were determined to be separate topics. 18 So they were split. So this is A, and then 19 there's a B. So they're actually -- there's a 20 whole nother item, I think, that's tested -- or a 21 couple of items. 22 Q. And what were those items? 23 A. I don't know. I don't think it's 24 relevant to this at all. I can probably look, if 25 that's okay with Trutek. But, otherwise, I don't	
16 A. I tried to record in the report anything 17 that I knew of and that I had information on. 18 Q. Okay. 19 A. So I don't think any other outside 20 materials were involved or else I would have 21 wanted to reference that. 22 Q. Okay. And I see the report is dated 23 January 18, 2021. Is that the same day that the 24 testing occurred? 25 A. Testing occurred on January 13th. So	118	120
1 the report was released five days later. 2 Q. Okay. And was the testing started and 3 completed all in the same day? 4 A. Yeah. 5 Q. And I see that there is a signature here 6 saying that the report was reviewed by Troy 7 Anthony. Who is that? 8 A. He's my general manager. When I 9 complete a report, the report has to be reviewed 10 by somebody else so that major mistakes, typos, 11 and the like are caught, as well as, let's say, 12 some other kind of mistake. But I submit it to 13 someone else for review. So a second pair of 14 eyes, basically, sometimes a fresh pair of eyes 15 can catch mistakes that I otherwise wouldn't after 16 I've looked at a report for too long. 17 Q. Okay. And do you recall how long it 18 took you to prepare the report? 19 A. No. Probably half an hour or an hour, 20 perhaps. 21 Q. And at the bottom of this page, there's 22 a report revision history. Do you see that? 23 A. Yeah. 24 Q. And there's a report version 1, which 25 looks like that's this version?	1 believe it has any relevance to this. 2 Q. Did it involve testing of Trutek 3 products? 4 A. Yes. 5 Q. Did it involve testing of BlueWillow 6 products? 7 A. I don't believe so. 8 Q. Okay. 9 MS. PETERSON: Counsel, we would ask for 10 a copy of that report. 11 MR. KREMEN: I'll take it under 12 advisement. 13 DOCUMENT/DATA REQUESTED: 14 MS. PETERSON: Okay. Can we go to the 15 next page. 16 BY MS. PETERSON: 17 Q. So the very first section, "Test 18 Objective," it states that "The purpose of this 19 test was to determine the magnitude (amount) of 20 surface electrostatic charge created by means of 21 the application of solution and spray containing 22 permanently ionized molecules"; right? 23 MR. KREMEN: Where are you reading from? 24 MS. PETERSON: "Test Objective" right at 25 the top.	

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Transcript of Shane Burns

31 (121 to 124)

October 25, 2022

	121	123
1 MR. KREMEN: Oh, okay. I see.	1 the interior of a connected Faraday cup.	
2 BY MS. PETERSON:	2 And what you'd read out on the screen	
3 Q. Did I accurately identify the test	3 should be the voltage times the capacitance, and	
4 objective, Mr. Burns?	4 that should give you the charge. So it's a	
5 A. Yeah.	5 NanoCoulomb Meter. So if you're trying to use	
6 Q. Okay. So the purpose of the test was	6 something in nanocoulombs say, for example, then	
7 not just to determine whether the solution and	7 you want a capacitor that's comparable. So...	
8 spray exhibited a surface electrostatic charge,	8 Q. Okay. So the readout on the screen	
9 but also to measure the magnitude or amount of	9 gives you the voltage and the capacitance that's	
10 that charge; right?	10 being measured? Did I hear you correctly?	
11 A. Correct.	11 A. No, what's on the screen is the charge,	
12 Q. Okay. And was this test objective	12 which is the product of voltage times capacitance.	
13 provided to you by Trutek, or did you draft this?	13 Q. Okay. So the readout on the screen is	
14 A. That was provided by Trutek, yeah.	14 the charge?	
15 Q. Okay. And it looks like we've got a	15 A. Yes, Q equals CV.	
16 section -- Section II describes the test equipment	16 Q. Okay. Are there ever any instances	
17 that you used; right?	17 where you would -- apart from when the equipment	
18 A. Yeah.	18 has been marked out of use, are there any	
19 Q. So on this section page, I see that	19 instances where you would calibrate a piece of	
20 there is a last calibration date of April 2nd,	20 equipment more frequently than once a year?	
21 2020, for the NanoCoulomb Meter; right?	21 A. Oh, yes.	
22 A. Correct.	22 Q. When would you do that?	
23 Q. How often is that equipment calibrated?	23 A. So let's say you're performing your	
24 A. We try to do it once a year. The	24 functional test shortly before beginning the test.	
25 exception is that if for some reason the equipment	25 So this is typically what you do. So what you	
	122	124
1 falls out of use, we have to mark it as for	1 would do is you'll take that capacitor. You'll	
2 reference only and set it aside. So, typically,	2 charge it up using the provided voltage coming out	
3 if the equipment is out of use for long periods of	3 of the front of the machine. There's a little red	
4 time, at the next point in time in which the	4 output. And then you test the machine.	
5 equipment needs to be calibrated at the one-year	5 And let's say you're -- the charge you	
6 mark, we check to see, basically, has it been used	6 read on the screen is out of the tolerance of the	
7 often enough, and then we'd set it aside. So	7 machine's specified accuracies and the tolerance	
8 under normal circumstances, the equipment is	8 of the capacitor that you're measuring. Well,	
9 calibrated annually.	9 that's an indicator that something has gone wrong	
10 Q. Okay. And just, generally speaking, how	10 in the machine. So you can't perform testing at	
11 is it calibrated?	11 that point, you have to stop, and you have to	
12 A. So there's -- typically, the way that	12 figure out what's wrong with the machine and	
13 you'd do it is you're taking a measurement. And	13 retake the test.	
14 if the measurement is incorrect on a controlled	14 Q. Okay.	
15 amount of charge, then you have to make	15 A. If the machine needs to be calibrated	
16 adjustments, and that requires us to open it up	16 and you recalibrate it, you know, then you have to	
17 and make some adjustments inside, and we have a	17 basically update the calibration date, fill out a	
18 procedure for that.	18 new certificate, all of that. So...	
19 But the way that you make the accurate	19 Q. Okay. Thank you for that explanation.	
20 measurement is you take a controlled capacitor,	20 Other than that functional test, do you	
21 something that has a very tight tolerance, as	21 do any other types of tests prior to using a piece	
22 stated by the manufacturer. And you charge that	22 of equipment to ensure it's operating correctly?	
23 up to a specified voltage, usually 1 volt. And	23 A. I mean, you want to make sure that it's	
24 then you put it into the input of the machine.	24 on and operates properly, and that functional test	
25 You can even do this by putting it directly into	25 really covers quite a lot.	

Transcript of Shane Burns

32 (125 to 128)

October 25, 2022

	125		127
1 Q. Okay.		1 of pigskin used in this experiment?	
2 A. You're making sure that the voltage		2 A. Yes. I guess you could say one original	
3 output is correct. You're making sure that the		3 piece. It's clearly -- it was cut into smaller	
4 machine is reading the right amount of charge on a		4 pieces in order to make the thing work.	
5 specified capacitor. And, of course, you know,		5 Q. Of course. And the skin was cut into	
6 along with that, you're making sure that		6 those smaller pieces by the Trutek personnel;	
7 everything is connected properly. So --		7 right?	
8 Q. Okay.		8 A. Yeah.	
9 A. -- it's not really -- it's pretty		9 Q. And you don't recall whether that	
10 comprehensive by just performing a very simple		10 happened in your laboratory or before they	
11 test.		11 arrived; right?	
12 Q. And I don't see that recorded anywhere		12 A. No, I don't remember. I think that it	
13 in your report that that type of functional test		13 was cut before they arrived, but it might have	
14 was performed here; was it?		14 been done in the lab. We always keep a pair of	
15 A. No, I don't see that I've recorded that		15 scissors around in case samples do need to be cut.	
16 here in the report.		16 So it wouldn't surprise me if it was cut in the	
17 Q. So do you recall if you performed that		17 lab.	
18 functional test prior to running your -- prior to		18 Q. Okay. But you don't recall necessarily	
19 running the test described in this test report?		19 watching them cut the skin into the 12 samples;	
20 A. Yeah, you have to perform that test		20 right?	
21 every time.		21 A. No, I don't understand why this is	
22 Q. So even though it's not recorded here,		22 important. But, no, I don't remember whether or	
23 you believe that you did run it.		23 not I watched them cut the samples.	
24 A. Oh, yes.		24 Q. Okay. So you don't know what instrument	
25 Q. Okay.		25 was used to cut the samples?	
	126		128
1 MS. PETERSON: Let's go to the next		1 A. It could be a pair of scissors. It	
2 page.		2 could be, I don't know, a box cutter, perhaps. I	
3 BY MS. PETERSON:		3 have no idea what -- at this point what was used	
4 Q. And here we have some information on the		4 to cut the samples. I did not specify that in the	
5 Faraday cup. And it looks like it has the same		5 report. It did not seem like something I needed	
6 last date of calibration of April 2nd, 2020. Is		6 to include here.	
7 that piece of equipment also typically		7 Q. And I assume you also then don't know	
8 recalibrated once a year?		8 how the pigskin was handled, whether it was you	
9 A. It's part of the system. So they get		9 using some other object or with gloves or bare	
10 calibrated together.		10 hands?	
11 Q. Okay. So that functional test you		11 A. Well, I know I was wearing gloves, but I	
12 described would also be ensuring that the Faraday		12 don't know that I actually handled the samples	
13 cup is operating properly?		13 with gloves, because we have a pair of plastic	
14 A. The cup has to be connected to the		14 tongs that we would use typically for this test.	
15 machine in order to perform that test.		15 So other versions of this test, other types of	
16 Q. Okay.		16 testing that involve, say, a Faraday cup and a	
17 A. Right.		17 NanoCoulomb Meter often uses plastic tongs. That	
18 MS. PETERSON: Let's go to the next		18 way any charge that's on your person doesn't get	
19 page.		19 transferred. So I may have used gloves. We may	
20 BY MS. PETERSON:		20 have only handled them with the tongs. I don't	
21 Q. Okay. So here we have a depiction of		21 know.	
22 the piece of pigskin which measured approximately		22 Q. Okay. But you don't know how the Trutek	
23 12 inches by 12 inches; right?		23 personnel handled the pigskin when it was cut into	
24 A. That's what it says, yes.		24 the 12 pieces; right?	
25 Q. Okay. And so there was just one piece		25 MR. KREMEN: Calls for speculation.	

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Transcript of Shane Burns

33 (129 to 132)

October 25, 2022

	129		131
1	THE WITNESS: I don't know.	1	MR. KREMEN: Oh, God.
2	BY MS. PETERSON:	2	THE WITNESS: No, I don't know.
3	Q. And then I understand that because there	3	BY MS. PETERSON:
4	were two products, three tests each, does that	4	Q. Okay. If you don't know, that's fine.
5	mean that there were six sections of pigskin used	5	Do you know how old the sample was?
6	in your test?	6	Like how much time had passed from when the sample
7	A. I believe so. That's what it says.	7	was first prepared to when it was used in your
8	Q. Okay. Do you know what happened or what	8	lab?
9	was done with the remaining six pieces of pigskin?	9	A. No.
10	A. Well, I assume they were used -- yeah,	10	Q. Okay. Did you do anything to check the
11	they were used in the other test.	11	integrity of the pigskin before completing the
12	Q. Okay. And then below that picture, it	12	12 test?
13	says that each product test sample created was 4	13	A. No.
14	inches by 3 inches, and then it says it was	14	Q. Do you know if the Trutek personnel did
15	uniformly coated with test product.	15	anything to check the integrity of the pigskin
16	Do you see that?	16	16 before the test?
17	A. Yes.	17	A. I don't know. I can't answer that.
18	Q. So does that mean that the test product	18	Q. Okay. At the bottom of the section, it
19	was uniformly spread over the entire surface area	19	20 indicates that all testing was performed at a
20	20 of the 4-by-3-inch piece?	20	20 control temperature of 72 degrees plus or minus
21	A. Yes, that's what that's intended to	21	21 2 degrees Fahrenheit and 12 degrees percent
22	mean. The idea being that the substance wouldn't	22	22 relative humidity plus or minus 2 degrees -- or
23	be unevenly distributed on the substrate.	23	23 I'm sorry, 2 percent relative humidity -- let me
24	Q. Okay. I'm sorry, the idea being that	24	24 start over again.
25	the substance would not be unevenly distributed.	25	A. Sure.
	130		132
1	A. That's a double negative, right. The	1	Q. Testing was performed at a control
2	idea being that the substance would be evenly	2	temperature of 72 degrees plus or minus 2 degrees
3	applied.	3	Fahrenheit?
4	Q. Across the entire substrate?	4	A. Correct.
5	A. Across the entire substrate, yes.	5	Q. And the relative humidity was 12 percent
6	Q. Great. Thank you.	6	plus or minus 2 percent?
7	And the pigskin itself, it was dried.	7	A. Correct.
8	A. I don't know what that means, but it was	8	Q. Okay. How were those conditions
9	dry. I guess it wasn't wet.	9	selected?
10	Q. Like, there wasn't some other apparatus	10	A. Because those are the standard
11	11 being used in your lab to moisten or keep the skin	11	conditions for performing testing on electrostatic
12	12 wet during the testing procedure; right?	12	charge on an object in a Faraday cup.
13	A. No. No, nothing like that.	13	Q. Okay.
14	Q. Okay. Do you know where the pigskin	14	A. The reason for that is if you let the
15	15 sample was obtained from?	15	humidity go too high, then humidity suppresses
16	A. No.	16	electrostatic fields. If you have a high
17	Q. Do you know when it was obtained?	17	humidity, it would alter the reliability of the
18	A. No.	18	test.
19	Q. Do you know how it was stored prior to	19	Q. Okay.
20	20 the test?	20	A. And the temperature was just picked
21	A. No. I don't remember anything	21	21 because I like it. No, that's not true. I'm
22	22 particular being said about that.	22	22 joking. That temperature is actually a really
23	Q. Okay. Do you -- I'm sorry, I have to	23	23 standard temperature used in all ANSI documents,
24	24 ask these questions, but do you know what part of	24	24 in ANSI standards. So it's very typical for ANSI
25	25 the pig the skin came from?	25	25 documents to reference 72 degrees plus or minus

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<p>1 2 degrees Fahrenheit. Someone picked that a long 2 time ago and that's been generally recognized as 3 what's called room temperature, even though 4 obviously a regular room isn't necessarily going 5 to be exactly 72 degrees. But that's the 6 temperature at which you have to hold the chamber 7 at in order to have repeatability.</p> <p>8 So -- and the two humidities that are 9 usually chosen by ANSI, they're almost in all of 10 the ANSI documents have a 12 percent set point and 11 a 50 percent set point in some, but that's not -- 12 that's not always the case. But 12 percent is in 13 nearly every ANSI document. And that includes the 14 one that describes this test method.</p> <p>15 Q. Okay. And that's because I think you 16 said that if the humidity is any higher, then it 17 messes with the electrostatic fields. I can't 18 remember how --</p> <p>19 A. Yeah, if you get up to 55 percent 20 humidity, then you're going to start seeing the 21 humidity suppressing the electrostatic fields. So 22 things that were -- so materials that were, for 23 example, insulators at very low humidity, say 24 12 percent, begin becoming dissipative or even 25 conductive depending on how porous they are at</p>	133	<p>1 A. I mean, at least three times, but 2 probably -- probably at least three times, yeah. 3 I'm sure I recorded that somewhere perhaps or -- 4 but at any rate, I did it in front of the 5 customer.</p> <p>6 Q. Okay.</p> <p>7 A. They saw that I had done it.</p> <p>8 Q. Okay. So each of the six individual 9 sections that was used in this test was measured 10 repeatedly after being neutralized?</p> <p>11 A. Yeah.</p> <p>12 Q. Okay. And in Item No. 2, it says, 13 "Before applying any test product sample, the 14 substrate was neutralized again."</p> <p>15 Why was that?</p> <p>16 A. Well, you've just taken the substrate, 17 right, and tested it by itself repeatedly after 18 ionizing it to see that it was indeed neutralized; 19 right? But in the process of performing that 20 test, you've moved it. You've pushed it through 21 the air and possibly triboelectrically charged it 22 removing it from the cup. So you need to 23 neutralize it again before you apply the substance 24 to it, or else it's going to have some base charge 25 to it.</p>	135
<p>1 very high humidities.</p> <p>2 So you have to keep the humidity in a 3 controlled state. And the generally accepted 4 state has been 12 percent because this was 5 actually crafted by the electronics industry. 6 This is sort of like an air-conditioned room in 7 the wintertime. So that's why 12 percent was 8 chosen.</p> <p>9 Q. Okay.</p> <p>10 A. There were round robin tests to try to 11 establish that.</p> <p>12 Q. Okay. Looking at the next section under 13 "Methodology" now. I see in Item 1 that's talking 14 about the ionization process that you referred to 15 earlier; correct?</p> <p>16 A. Correct.</p> <p>17 Q. Okay. And so it looks like the test 18 substrates were ionized to neutralize existing 19 charge. And then it says they were measured 20 repeatedly to see how much the substrate material 21 of the pigskin would affect the result; right?</p> <p>22 A. Correct.</p> <p>23 Q. Okay. So how many -- I mean, how many 24 times -- it says "measured repeatedly." How many 25 times is that?</p>	134	<p>1 Q. Okay. And how much time typically would 2 it -- or how much time did it take to complete 3 this first step, the neutralizing and testing of 4 the neutralized substrate?</p> <p>5 A. Well, we did each one, right. So you 6 would do this with one substrate, and then you 7 would apply the material. And then you would test 8 the material, and then grab another substrate and 9 do the same process again. So it wasn't all 10 done -- you didn't perform all of the 11 neutralization of charge on all of the materials 12 at the same exact time. You did each one.</p> <p>13 Q. Okay.</p> <p>14 A. Right? So logically you're trying to -- 15 you're performing the neutralization on the 16 substrate, testing it, neutralizing it again, 17 applying the substance that you're actually trying 18 to get the test data on, and then putting it in 19 the Faraday cup, testing that, and then -- and 20 then removing that, resetting the system, and then 21 moving to the next substrate.</p> <p>22 Q. Okay. And so for each substrate, 23 approximately how long does that process take?</p> <p>24 A. I don't know. Maybe half a minute.</p> <p>25 Q. Half a minute to ionize it and then test</p>	136

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1	it?	1	A. Well, we did. You know, we did because
2	A. Yeah, maybe a minute or two at most, but	2	that part we understood was actually data that
3	not a huge amount of time.	3	could affect the result.
4	Q. Okay. So once it's placed in the	4	Q. Okay.
5	Faraday cup, I mean, how long does it take to	5	A. So we wanted to record that.
6	record the measurement? That's pretty quick?	6	Q. Okay. And then next in Item 3, it
7	A. Yeah, like one, maybe two seconds. A	7	explains that the solution and spray test products
8	few seconds.	8	were coated using a cotton swab with approximately
9	Q. Okay.	9	1.5 milliliters for a smooth and uniform
10	A. Yeah, you're reading it off the screen,	10	application. And that coating process, again,
11	and then you're typing it into your spreadsheet or	11	that was conducted by the Trutek personnel?
12	database or whatever it is.	12	A. Yeah.
13	Q. Okay. And is it correct that you did	13	Q. Okay. And the specific pigskin
14	not measure the charge on an unionized sample of	14	substrates that were used were those same six
15	the pigskin as a control in this experiment?	15	samples that had previously been ionized and
16	A. No, the control was the ionized sample	16	measured in Step 1?
17	of the pigskin. The control --	17	A. Yes, like I said, we didn't ionize them
18	Q. Yeah, I understand that. But you did	18	all at once. This is a series of steps that we
19	not also measure or test an unionized piece of	19	performed on each individual substrate; right? So
20	pigskin; right?	20	we didn't -- I just want to make sure we're clear.
21	MR. KREMEN: Objection to the form.	21	We applied the material on one specimen, on one
22	You can answer.	22	substrate, tested that, and then started over
23	THE WITNESS: Okay. I think we may have	23	again at Step 1 with the next substrate.
24	actually at some point tested the pigskin by	24	Does that make sense?
25	itself. I don't think that we recorded that,	25	Q. That does, yeah. And that wasn't
	138		140
1	though, here in this report.	1	spelled out in your report. So thank you for
2	BY MS. PETERSON:	2	clarifying that.
3	Q. Why not?	3	A. Yeah, because you couldn't apply it to
4	A. Because ultimately that was not what was	4	all of them at once and then test them because the
5	part of the test. We were testing the substance	5	time it would take to do that, you know, they
6	on neutralized pigskin.	6	might -- you know, the environment might dry them
7	Q. Okay. So why did you at some point test	7	out or something, you know.
8	the pigskin by itself?	8	Q. Okay. And then looking at Step 4, it
9	A. I think we may have done it just to make	9	says that after waiting for four minutes --
10	sure we were set up and ready to work. We	10	A. Yeah.
11	didn't -- I don't think we were doing it in	11	Q. -- or three to five minutes after
12	particular to test the -- I think we may have done	12	coating, then the samples were placed into the
13	it one time or maybe a couple of times, but it was	13	cup. So why -- what was going on in that
14	just to make sure that we had everything up and	14	four-minute time frame?
15	operating and ready to go.	15	A. So my understanding was that what we
16	Q. Okay.	16	were trying to accomplish was we're sort of trying
17	A. We were practicing because the issue is,	17	to imitate something that happens in,
18	is we were about to spread something kind of messy	18	quote-unquote, real life, let's call it.
19	on the substrate, you know, and you can't practice	19	Q. Okay.
20	once you've got -- once you've got the gunk spread	20	A. So, you know, you're applying this
21	on there, so to speak, you know, you mess that up.	21	substance and waiting for it to, I guess, absorb
22	There's no undoing it.	22	or take hold or whatever the case may be. But
23	Q. Yeah, sure.	23	you're doing something similar to what would
24	But you could have also practiced with	24	happen in, say, a real life situation.
25	the ionized pigskin, as well; right?	25	Q. Okay. So that waiting time of

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1	four minutes, that was intentional as opposed to	1	Q. Okay. Yeah, you actually have a pretty
2	just a function of the time that it takes to get	2	good memory about that. Yeah.
3	the equipment set up?	3	A. I don't remember what they were called.
4	A. The equipment was already set up. So we	4	So I don't have that great a memory.
5	were -- what we were doing was trying to, I guess,	5	Q. Okay.
6	simulate a behavior or simulate a pattern of what	6	A. That's why we write things down; right?
7	someone would actually do with this product.	7	Q. Okay. But so certainly in this second
8	Q. Okay. And that time period of waiting	8	round of testing, there's only one Trutek product
9	four minutes, I assume that was something that was	9	described in the report; right?
10	requested by Trutek?	10	A. Yes, it's identified as TTK-NS; right?
11	A. Yeah.	11	Q. I'm sorry, my phone just rang. I didn't
12	Q. That wasn't your suggestion?	12	hear what you said. So TTK-NS, yes. Okay. So
13	A. No.	13	you did not test a second Trutek product as part
14	Q. Okay. Just below this, we've got an	14	of this second round testing?
15	indication of which samples were measured or	15	A. No, nothing else.
16	tested; correct?	16	Q. Okay.
17	A. Yes.	17	A. If I did, I certainly didn't include it
18	Q. Okay. Do you know when the Trutek	18	in the report; did I? No, I don't have anything
19	samples were manufactured?	19	else listed.
20	A. No.	20	Q. And if you had tested it, it would have
21	Q. Do you know their expiration date?	21	been included in the report?
22	A. No.	22	A. Yeah, unless it was just -- I can't
23	Q. Do you know when the Blue Willow products	23	think of a reason why it wouldn't be included,
24	were manufactured?	24	but, you know, the customer requested that this be
25	A. No.	25	what was tested and included. So I assume this is
	142		144
1	Q. Do you know their expiration date?	1	all that was tested.
2	A. No.	2	Q. Okay. Let's take a look at Section V
3	Q. When you're testing products for your	3	now, the "Testing." So for each product we have a
4	customers, do you typically want to make sure that	4	total surface electrostatic charge recorded here
5	you're testing products that have not expired?	5	for three experiments for each sample; right?
6	A. Electrostatic products for the most part	6	A. Correct.
7	don't usually have a listed expiration date. And	7	Q. So those would be the three replicates?
8	those that do, typically we're applying it or the	8	A. Correct.
9	customer is applying it not very long before we	9	Q. Okay. And just to confirm -- oh, and I
10	actually test it. And those are mostly -- for the	10	guess that would be the three samples of pigskin?
11	most part those are materials that have not been	11	A. Correct.
12	manufactured very long before.	12	Q. Okay. And so each sample of pigskin, it
13	Q. Okay. Now, in the course of this second	13	was only tested and measured once; is that
14	round of testing, were you ever asked to test any	14	correct?
15	other products of Trutek?	15	A. Well, I certainly couldn't measure it
16	A. Well, there was a spray and there was	16	twice once we had coated it in all of that fluid.
17	some kind of gel; right?	17	You know, I mean, you put the fluid on and you
18	Q. Yeah.	18	toss it in that cup and now it's touched the wall
19	A. So there was those two things. And then	19	of a cup. You can't retest that.
20	this report all we tested was, it looks like, the	20	Q. No, I'm just checking to make sure that
21	spray. But I know there was that first test that	21	there was one test per sample.
22	we did back in 2019. I'd have to look at the	22	A. Yeah.
23	report, but it seems like there were a couple, at	23	Q. Okay. And then there's a note at the
24	least two different products that were tested in	24	bottom of the table. Can you read that?
25	that report, as well.	25	A. Yeah.

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<p>1 Q. Okay. It says that the "Neutralized 2 substrates' total electrostatic charge was 3 measured at the beginning and at the end." 4 What do you mean "at the end"? At the 5 end of each test, it says. 6 A. I don't know why it says at the end, 7 but -- because I don't know how we would have 8 tested them at the end. It's got to be a typo. 9 But, yeah, we neutralized the substrates, and 10 we -- I guess "at the end" must mean after we've 11 applied the coating to it. But at any rate, yeah. 12 Well, at the end -- beginning and end 13 of, what, ionization. I don't know. But -- yeah, 14 we measured them before we applied the substance, 15 and then we applied the substance and then tested 16 them with the substance. 17 That's a poorly written sentence; isn't 18 it? I apologize for that. That's got to be my 19 fault. 20 Q. That's okay. 21 So do you remember or do you think you 22 have an idea of what happened? 23 A. Well, I described it earlier. We 24 neutralized the substrate, and then we measured 25 them; right? And applied the material to the</p>	<p>145</p> <p>1 relation to your reference. So your reference is 2 the outside of the Faraday cup and the inside of 3 the Faraday cup. So it's a cup within a cup 4 separated by an air gap and sometimes spacers, in 5 this case they were Teflon spacers. So they 6 wouldn't be contributing to the measurement; 7 right? 8 Q. Okay. 9 A. And so what you have is basically -- if 10 it's a negative charge, you have slightly more 11 electrons on the -- which are negatively charged, 12 on the surface of the material than you would have 13 on your reference point. 14 Q. Okay. And so -- 15 A. So if you had slightly fewer electrons 16 on the surface of the material than you would have 17 on your reference point, it would be a positive 18 charge. 19 Q. Okay. And for all of the neutralized 20 substrate measurements, were they all negatively 21 charged? 22 A. Yeah, this is to say -- well, yeah, it 23 looks like they were. So the average was negative 24 .028. So that's not very big at all. So, yeah, 25 small amounts of charge, nothing significant.</p>
<p>1 substrate and then performed the test. So we have 2 the measurement for the test, and then we have the 3 measurement up above in the table after we had 4 applied the material. 5 Q. But you're not sure based on this -- or 6 do you know, were the samples -- were the 7 substrates neutralized again after? 8 A. No, you didn't neutralize them after you 9 applied the goop to them, the liquid. 10 Q. Okay. 11 A. That wouldn't make any sense. 12 Q. Okay. Okay. So anyways, the 13 measurements for the neutralized substrates, you 14 report that they were measured to have less than 15 minus 0.07 nanocoulombs? 16 A. Correct. Yeah. 17 Q. Okay. In all cases. 18 And then averaging minus 0.023 19 nanocoulombs? 20 A. Right. Very small charges on the actual 21 substrates themselves. So the substrates are not 22 significantly charged is what we're saying there. 23 Q. Okay. And so they -- the neutralized 24 substrates, they had a negative charge? 25 A. You can have a negative charge in</p>	<p>146</p> <p>1 Q. Because it looks like you only have the 2 maximum charge and the average charge reported 3 here? 4 A. Yeah. So -- well, I suppose you could 5 say it would be possible for there to be a 6 positive charge in there, but it couldn't have 7 been a very large one. 8 Q. Okay. And this would be the highest 9 measurement as well as the average of all six of 10 the substrate samples that were prepared? 11 A. Yeah. 12 Q. Okay. So you don't have any 13 measurements reported here based on each piece of 14 skin separately? 15 A. It doesn't look like I recorded that in 16 the report. 17 Q. Okay. And then the -- I would also 18 assume then that means that the charge that was 19 measured for the neutralized substrate was not 20 subtracted out or removed from the total surface 21 electrostatic charge that's reported in the table 22 for each of those samples? 23 A. It doesn't look like it here, no. 24 Q. Okay. And then the final table, "Data 25 Results," here you just took the average total</p>

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<p>1 surface electrostatic charge for each product 2 divided by the total surface area of the substrate 3 in square centimeters to come up with a charge per 4 square centimeter?</p> <p>5 A. Yeah, so we were basically trying to 6 figure out how much you had based on surface area. 7 And, you know, obviously the law of averages had 8 to apply. So you took the total charge of the 9 applied substance and the substrate, and then you 10 divided it by the amount of surface area that you 11 had.</p> <p>12 So it wasn't -- there's not a very 13 clear-cut way of doing this if you wanted to 14 associate, say, a square centimeter-age, I guess, 15 or a surface area to the amount of charge. So 16 what we're trying to do is estimate the amount of 17 charge that you might find in any given average 18 square of the material.</p> <p>19 Q. Okay. And then it looks like the 20 average charge per square of material, it was 21 higher for the BlueWillow product than it was for 22 the Trutek product; right?</p> <p>23 A. Yeah.</p> <p>24 Q. Okay. And then if we go back and look 25 at the table above it real quick, the total</p>	<p>149</p> <p>1 and 2, we're assuming that a consistent amount of 2 the material was applied. So you think one 3 explanation for the difference in surface 4 electrostatic charge might be the consistency in 5 the material -- the test material itself?</p> <p>6 A. Yeah. And I believe we used the same 7 amount each time on this one because I think -- in 8 fact, I think it even says that we took a pipette 9 and tried to draw out material out of the 10 containers using a pipette that would measure the 11 exact same amount.</p> <p>12 So we had consistency in the amount, but 13 we didn't get the same consistency in the measured 14 charge. So we knew that it was, I think, 15 something like 1.5 milliliters of fluid applied to 16 each substrate.</p> <p>17 Q. So given that a consistent amount of 18 each sample was applied to the substrate, you were 19 expecting to get a similar surface electrostatic 20 charge for each sample; right?</p> <p>21 A. Yeah.</p> <p>22 Q. Can you think of -- or did you have any 23 other ideas for why the discrepancies for the 24 BlueWillow product?</p> <p>25 A. No, that would be speculation. I didn't</p>	<p>150</p> <p>1 surface electrostatic charge measurements reported 2 for the three samples of the Trutek product, those 3 are all pretty close to each other?</p> <p>4 A. Yeah. Yeah.</p> <p>5 Q. For the BlueWillow product, though, 6 that's a pretty -- it's a much bigger range; 7 right?</p> <p>8 A. Yeah. There's a pretty small one there 9 on the second experiment. So it's -- it's got 10 some inconsistency to that material.</p> <p>11 Q. When you said there's a -- I'm sorry, 12 you said there's a pretty small one there on the 13 second experiment. What are you talking about?</p> <p>14 A. Yeah, so Experiment 1 had .85 15 nanocoulombs; right? And then Experiment 2 had 16 only .09 of the BlueWillow product. Both the same 17 amount of substance was applied in both 18 situations. That means that your chances of 19 having consistency -- or a consistent charge from 20 that substance is not great. And what you're 21 hoping for is that you get the same charge or 22 close to the same charge repeatedly. So that 23 proves that you have consistency in the material.</p> <p>24 Q. Okay. So I just want to make sure I 25 understand. So the variation between Experiment 1</p>	<p>152</p> <p>1 really want to guess at that.</p> <p>2 Q. Did anybody ever ask you to repeat the 3 test in view of the variability and results 4 reported for the BlueWillow product?</p> <p>5 A. No, but if you're interested, I can try 6 to come up with a quote.</p> <p>7 Q. No, that's okay, but thank you.</p> <p>8 Okay. Let's look at the last page. And 9 here we have the conclusions. It looks like 10 Conclusion 1 just, again, restates the results 11 that you objected; right?</p> <p>12 A. Sure. Yeah.</p> <p>13 Q. All right. And then the second 14 conclusion, you state that the two test products 15 both demonstrated the presence of a surface 16 electrostatic charge of similar order of 17 magnitude; right?</p> <p>18 A. Yeah, they are similar order of 19 magnitude.</p> <p>20 Q. Okay. What exactly are you using to 21 determine whether it's a similar order of 22 magnitude?</p> <p>23 A. My order of magnitude we're saying that 24 it's the same power of 10, right. That's what 25 order of magnitude means. So let's say you've got</p>
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1 two variables -- or two measurements that you're 2 measuring. Let's say you're measuring something 3 that's -- I don't know, that's 100 nanocoulombs 4 and another one that's 200 nanocoulombs. Well, 5 they're in the same order of magnitude; right? 6 There's a big difference between 7 something that's 100 nanocoulombs and something 8 that's a thousand nanocoulombs. Now they're in 9 different order of magnitude. So that's what that 10 means.	1 doesn't mean that one is preferred or better or 2 worse. It doesn't matter to me. 3 Q. Okay. 4 A. That's something somebody else can 5 bicker about. But which one is bigger or which 6 one is smaller in terms of measurement, that's 7 important to note because you want to be able to 8 differentiate what stands out. 9 Q. Okay. And then one last question on 10 this report. After you prepared it, who did you 11 provide it to, Mr. Wahi or -- 12 A. I provided it to Mr. Wahi. Yeah, he was 13 the customer. 14 Q. Okay. And did Mr. Wahi or anybody else 15 from Trutek request any revisions or changes to 16 the report? 17 A. Well, I already told you, there was a 18 version of this where there were actually a whole 19 bunch of -- basically two tests and one report -- 20 or two separate test reports that he explained to 21 me clearly were intended to be two separate 22 reports, not the same. And so I had to split that 23 out. 24 So what I did is I had a report No. 337, 25 and we split it into an A and a B because they	
11 Q. Okay. Thank you. 12 And were you asked by Trutek to provide 13 a conclusion as to whether the surface 14 electrostatic charge of the Trutek and the 15 BlueWillow products were of the same order of 16 magnitude? 17 A. I don't remember if they specifically 18 asked for that. I provided it because I felt as 19 though it was -- that basically what we were 20 trying to talk about -- I mean, you remember at 21 the very beginning of this, we were trying to find 22 out what the magnitude was. That was our stated 23 goal, was to find out what the magnitude was of 24 the charge. So if they were the same order of 25 magnitude, then that would be stated in our		
154	156	
1 conclusion. 2 Q. Okay. 3 A. If they were in a different order of 4 magnitude, we would have to say that too. 5 Q. And that's exactly why I was wondering, 6 because the test objective doesn't say anything 7 about comparing the surface charge of the two 8 products. It just says that the purpose of the 9 test was to determine the magnitude of the surface 10 electrostatic charge. So -- 11 A. That's fair. 12 Q. So I was wondering why your conclusion 13 contains the -- you know, not just the magnitude 14 of the surface charge that was measured, but also 15 an assessment of the order of magnitude relative 16 between the two? 17 A. That's just typical stuff that people 18 ask for in a test or expect to see in the test 19 anyway, is they send me a bunch of, say, 20 materials, foam or plaques or something like that, 21 and they label them some alphanumeric group 22 number. And I tell them -- I'll test and tell 23 them which one is the largest or the smallest or 24 whatever the case may be or if I noticed anything 25 unusual, and that's stated in the conclusions. It	1 were separate -- of separate interests to him. 2 They were not the same. It was comparing the same 3 substance to two other substances, and he didn't 4 want them to be compared. There was something 5 that wasn't relevant to having them both in the 6 same report. 7 Q. Okay. Sorry, you just mentioned a 337A 8 and 337B. Is that something written on this 9 report? 10 A. Yes. 11 Q. Where? 12 A. So in the footer of every single page, I 13 say what report number this is. 14 Q. Yeah, it looks like it's 215. 15 A. Okay. So you're looking at -- 16 Q. Oh, I'm looking at the wrong one, I'm 17 sorry. 18 A. Okay. What we have on display is 337A. 19 Q. Yeah, I'm looking at my own copy. I 20 apologize, I have the wrong one up. So, yeah, I 21 see that, 337A. Thank you. 22 MS. PETERSON: Okay. Let's go off the 23 record and take a short break. 24 THE VIDEOGRAPHER: We're going off the 25 record. The time is now 2:46 p.m.	

Transcript of Shane Burns

40 (157 to 160)

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	157		159
1	(Recess from the record.)	1	I'm not aware of that.
2	THE VIDEOGRAPHER: We're back on the	2	Q. Okay.
3	record. The time is now 2:59 p.m.	3	MS. PETERSON: Well, let's take a look
4	BY MS. PETERSON:	4	at the last page.
5	Q. Mr. Burns, I'm just going to ask you	5	BY MS. PETERSON:
6	again, did you speak to anybody during the prior	6	Q. So you can see test results that are
7	break or any other break today --	7	reported here. There's a section for "Blank
8	A. No.	8	Uncoated Substrate"; right?
9	Q. -- about the testimony you provided	9	Do you see that?
10	10 today at the deposition?	10	MR. KREMEN: Where are we talking about?
11	A. No.	11	What page?
12	MS. PETERSON: Okay. I'd like to mark	12	MS. PETERSON: Page 3. It's up on the
13	one last exhibit. Let's pull up Dr. Ermakov's	13	screen.
14	report. This is my Item No. 4, Jennifer --	14	THE WITNESS: Yeah, I see it there.
15	actually, sorry, my Item No. 5.	15	BY MS. PETERSON:
16	THE REMOTE TECHNICIAN: Okay. Thank	16	Q. Okay. And then there's two NasalGuard
17	you.	17	products listed here; right?
18	MS. PETERSON: Okay. And we will mark	18	A. I see that.
19	this as Exhibit -- actually, is it Exhibit 26?	19	Q. Okay. So there's a NasalGuard Airborne
20	MR. KREMEN: It's 27. 26 was the image	20	Particle Blocker and a NasalGuard Misting Spray.
21	21 of the NanoBio Protect -- the NasalGuard -- the	21	Do you see those listed?
22	22 NanoBio Protect product and the NasalGuard	22	A. I see those.
23	23 product.	23	Q. Okay. Now, the NasalGuard Misting Spray
24	MS. PETERSON: You're right. That's	24	24 is designated as TTK-NS. That's the same
25	right. Exhibit 26 was the two images of the	25	25 designation that you used in your report for the
	158		160
1	NasalGuard product. Okay. So we will mark	1	Trutek product; correct?
2	Dr. Ermakov's January 11th, 2021, report as	2	A. Yes, that's what I was told to -- so
3	Exhibit 27.	3	there was one material that had that label, and
4	(Burns Deposition Exhibit 27 was marked	4	that's what I was told to label that as --
5	for identification and attached to the	5	Q. Okay.
6	transcript.)	6	A. -- by the customer.
7	BY MS. PETERSON:	7	Q. Okay.
8	Q. Okay. Mr. Burns, I know you said	8	A. Like I said, the customer could have
9	earlier that you recall receiving and reviewing	9	called it A, B, and C. It doesn't matter to me,
10	10 Dr. Ermakov's earlier report from 2019. This is a	10	I'll label it some alphanumeric code that makes it
11	11 second report prepared by Dr. Ermakov testing the	11	easy for them to determine which substance is
12	12 Trutek and BlueWillow products dated January 11th,	12	which.
13	13 2021.	13	Q. Okay. And you see here in this table
14	Did you ever receive a copy of this	14	14 that Dr. Ermakov has reported the average surface
15	report?	15	15 charge per square inch for each of those four --
16	A. I believe I've got a copy of it, yes.	16	16 well, each of those three test samples plus the
17	Q. Okay. And so you've looked at it	17	17 blank substrate; right?
18	18 before.	18	Do you see that?
19	A. I've looked at it, yes.	19	A. I do see that.
20	Q. Okay. And you understand that	20	Q. Okay.
21	21 Dr. Ermakov tested the same NasalGuard product	21	MR. KREMEN: Per square -- is it per
22	22 that you tested, as well; right? Is that your	22	22 square inch? Where do you see per square inch?
23	23 understanding?	23	THE WITNESS: It's at the top of the
24	A. He tested a NasalGuard product. Is it	24	24 column on the far right-hand side.
25	the same -- I don't know if it's the same one.	25	MR. KREMEN: Yeah, but it's per square.

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Transcript of Shane Burns

41 (161 to 164)

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1	It's per square plus or minus. There's no inch
2	there.
3	THE WITNESS: I-N period square period.
4	I don't know that that I-N stands for inches, but
5	it does say I-N and then period and then S-Q
6	period.
7	BY MS. PETERSON:
8	Q. Okay. And then looking at the average
9	results reported for the two NasalGuard products,
10	would you agree that the surface charge that
11	Dr. Ermakov reported from his testing is higher
12	for the NasalGuard products than it is for the
13	BlueWillow product?
14	MR. KREMEN: Objection to form.
15	BY MS. PETERSON:
16	Q. You can answer.
17	A. So according to what he's written here, 18 you know, if I'm looking at this, it does look 19 like he's got an average line here. And he's 20 reported over on the far right-hand column for 21 the -- let's go at the top. So his blank uncoated 22 substrate had a very small measurement of 6.67 23 times 10 to the negative 15th. So it's very 24 small.
25	And then if you look at the substance
162	
1	that he's labeled TTK-APV, the average was
2	something more like 8.32 times 10 to the negative
3	14th. So it's slightly larger. It's one order of
4	magnitude larger.
5	And then similar order of magnitude for
6	the TTK-NS 7.19 times 10 to the negative 14th.
7	So, again, 10 to the negative 14th.
8	And then when you look at the BlueWillow
9	NanoBio Protect solution, BW-NBP, they average on
10	the very far right-hand side is, again, 4.35 times
11	10 to the negative 14th. And you're right that
12	the number itself is -- you know, the actual
13	average number itself is smaller, but the order of
14	magnitude is the same --
15	Q. Okay.
16	A. -- on those three products.
17	Q. Yeah, so same order of magnitude, but
18	the NasalGuard products are reported to have a
19	higher surface charge according to Dr. Ermakov's
20	testing; correct?
21	A. Yes.
22	Q. And that's the opposite result that you
23	reached; right? In your testing, you found that
24	the BlueWillow product had a higher surface
25	charge --
163	
1	A. Well, keep in mind --
2	Q. -- than the NasalGuard product?
3	MR. KREMEN: Objection.
4	Shane Burns said that he was not
5	qualified to comment on Ermakov's report or his
6	method of testing. The method of testing could
7	have given all of that. So I don't see where that
8	is a relevant question.
9	MS. PETERSON: Stan, please refrain from
10	making any speaking objections. I'm not asking
11	him to comment on Dr. Ermakov's testing
12	methodology. I'm simply asking him to look at the
13	numbers that are reported.
14	BY MS. PETERSON:
15	Q. So, Mr. Burns, would you agree that
16	Dr. Ermakov's results reached the opposite
17	conclusion showing that the NasalGuard product has
18	a higher surface charge than the BlueWillow
19	product?
20	A. I won't say opposite, but you are
21	correct in that saying -- if you're saying that
22	his report says that over here on the average
23	underneath the "Charge Coulomb/in period sq period
24	plus or minus," you go all the way down to where
25	25 it says the BlueWillow solution's average, it was
164	
1	4.35 times 10 to the negative 14th power.
2	And the TTK-NS was 7.19 times 10 to the
3	negative 14th. And that's an average.
4	And then the TTK-APB is 8.32 times 10 to
5	the negative 14th.
6	Q. Okay. So you agree with me that the
7	average charge reported for the TTK-NS product is
8	greater than the average charge reported for the
9	BlueWillow NanoBio Protect product; right?
10	A. I can read what his report says, yes.
11	Q. Okay. And so, yes, that's what his
12	report says that the TTK-NS product has a higher
13	charge; right?
14	A. That's what his report says.
15	Q. Okay. Only if you can, if you can't
16	answer it, that's fine. But do you have any
17	explanation for why the results are different
18	between your two tests, why NasalGuard was a
19	higher surface charge in Dr. Ermakov's test and
20	why you found that it had a lower charge?
21	MR. KREMEN: Objection to form.
22	THE WITNESS: I don't care to speculate
23	on the reasons why he came up with different
24	results because that has something intrinsically
25	to do with his method of measurement. However, I

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Transcript of Shane Burns

42 (165 to 168)

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<p>1 do notice that his report is measuring the same 2 orders of magnitude, so 10 to the negative 14th 3 for all three substances. So his methodology 4 somehow came up with the same order of magnitude 5 for all of them.</p> <p>6 Now, the actual averages for them are 7 different, and that's fine. But this has 8 something to do with how -- how he came up with 9 these measurements has something to do with his 10 methodology. And like I said, I'm not familiar 11 with this machine. So, you know, if you're asking 12 me for reasons why he came up with different 13 readings, you'd have to talk to him.</p> <p>14 BY MS. PETERSON:</p> <p>15 Q. Okay. Fair enough. Thank you for that.</p> <p>16 MS. PETERSON: Dr. Burns -- Mr. Burns, 17 I've elevated you to having additional degrees. 18 Anyways, thank you for your time today. I don't 19 have any other questions for you.</p> <p>20 MR. KREMEN: I don't have any questions.</p> <p>21 MS. PETERSON: Okay. So we can go off 22 the record.</p> <p>23 THE VIDEOGRAPHER: This marks the end of 24 deposition of Shane Burns. We're going off the 25 record. The time is now 3:11 p.m.</p>	<p>165</p> <p>1 ACKNOWLEDGEMENT</p> <p>2</p> <p>3 STATE OF MARYLAND) 4 ss 5 COUNTY OF MONTGOMERY)</p> <p>6 I, SHANE BURNS, hereby 7 certify, I have read the transcript of my 8 testimony taken under oath in my deposition of 9 October 25, 2022; that the transcript is a true, 10 complete and correct record of what was asked, 11 answered and said during this deposition, and that 12 the answers on the record as given by me are true 13 and correct.</p> <p>14</p> <p>15 _____ 16 SHANE BURNS</p> <p>17</p> <p>18 Sworn and subscribed to before me 19 this _____ day of _____, 2022.</p> <p>20</p> <p>21 _____ 22 Notary Public</p> <p>23</p> <p>24</p> <p>25</p>
<p>1 (Off the record at 3:11 p.m.)</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p>166</p> <p>168</p> <p>1 STATE OF MARYLAND) 2 ss: 3 COUNTY OF MONTGOMERY)</p> <p>4</p> <p>5 I, Matthew Goldstein, Notary Public 6 within and for the State of Maryland, do hereby 7 certify:</p> <p>8</p> <p>9 That I reported the proceedings in the 10 within entitled matter, and that the within 11 transcript is a true record of said proceedings.</p> <p>12</p> <p>13 I further certify that I am not related 14 to any of the parties to the action by blood or 15 marriage, and that I am in no way interested in 16 the outcome of this matter.</p> <p>17</p> <p>18 IN WITNESS WHEREOF, I have hereunto set 19 my hand this 3rd day of November, 2022.</p> <p>20</p> <p>21 _____ 22 Matthew Goldstein, RMR, CRR</p> <p>23</p> <p>24</p> <p>25</p>